STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 130586

TO: Shailendra Kumar
Location: 5c03 / 5c18
Wednesday, August 25, 2004
Art Unit: 1621
Phone: 272-0640
Serial Number: 10 / 656839

From: Jan Delaval
Location: Biotech-Chem Library
Rem 1A51
Phone: 272-2504

jan.delaval@uspto.gov

Search Notes

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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: S. Kumar Examiner #: 69591 Date: 8/24/04
Art Unit: 1621 Phone Number 308-2720-0610 Serial Number: 10/658839
Mail Box and Bldg/Room Location: REM 5C03 Results Format Preferred (circle): PAPER DISK E-MAIL
5C18

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Gelling agent or thickners

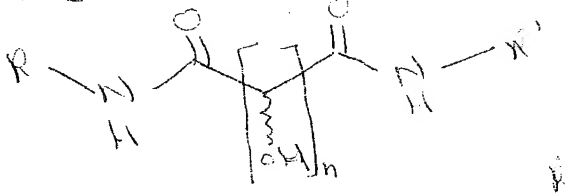
Inventors (please provide full names): Johannes Henricus van Esch et.al

Earliest Priority Filing Date: 6/3/2003

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

(1) Gelling agent or thickner in the form of a N,N' disubstituted alkanamide, a N,N' disubstituted pentaramid.

(2) Gelling agent or thickner of formula I



n is 3 or 4

R' and R'' are alkyl, alkenyl, substituted, possibly containing aromatic group

(3) See pieces of claims 7-18.

(4) ~~Gelling agent~~ (or) containing the gelling agent or thickner of any of claims 1-6.

****

STAFF USE ONLY

Searcher: _____
Searcher Phone #: 272-0610
Searcher Location: _____
Date Searcher Picked Up: 8/25
Date Completed: 8/25
Searcher Prep & Review Time: _____
Clerical Prep Time: 15
Online Time: 45

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 1
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN ✓
Dialog _____
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Dr.Link _____
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Sequence Systems _____
WWW/Internet _____
Other (specify) _____

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=> fil reg
FILE 'REGISTRY' ENTERED AT 07:34:28 ON 25 AUG 2004
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STRUCTURE FILE UPDATES:   24 AUG 2004  HIGHEST RN 732209-96-0
DICTIONARY FILE UPDATES:  24 AUG 2004  HIGHEST RN 732209-96-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
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http://www.cas.org/ONLINE/DBSS/registryss.html

=> d sta que l9
L7                STR
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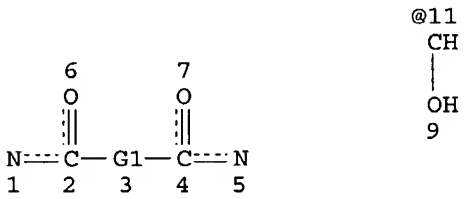


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   9

STEREO ATTRIBUTES: NONE
L9          173 SEA FILE=REGISTRY SSS FUL L7

100.0% PROCESSED  13313 ITERATIONS                      173 ANSWERS
SEARCH TIME: 00.00.01
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DIALOG
A THOMSON COMPANY

Search includes "substituted" groups for R | R' as per claim 2

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=> d his

     (FILE 'HOME' ENTERED AT 06:55:26 ON 25 AUG 2004)
               SET COST OFF

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               E VAN ESCH J/AU
L2            22 S E3,E5,E10
               E VANESCH J/AU
               E ESCH J/AU
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                E HEERES A/AU
L3           24 S E3,E5
                E APP NANO/PA,CS
                E APPL NANO/PA,CS
                E APPLIED NANO/PA,CS
L4           16 S E6-E9
                SEL RN L1

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L5           69 S E1-E69
L6           23 S L5 AND N>=2 AND O>=4
L7              STR
L8            5 S L7
L9          173 S L7 FUL
                SAV L9 KUMAR656/A
L10          81 S L9 AND PMS/CI
L11          44 S L10 AND 2/N
L12          37 S L10 NOT L11
L13           3 S L11 AND NC>=2
L14          41 S L11 NOT L12,L13
L15          33 S L14 AND 5-6/O
L16           8 S L14 NOT L15
L17          20 S L15 NOT XI
L18          13 S L15 NOT L17
                SEL RN 1 3 8-13
L19           8 S E70-E77
L20          92 S L9 NOT L10
L21          19 S L5 AND L9
L22          73 S L20 NOT L21
L23          35 S L22 AND N>=3
L24           3 S L23 AND (C18H22N4O10S2 OR C18H28N6O6 OR C18H18N4O10)
L25          38 S L22 NOT L23
L26          11 S L25 AND (C18H36N2O16 OR C5H10N2O5 OR C6H12N2O6 OR C12H20N2O6
L27          27 S L25 NOT L26
L28          77 S L19,L17,L21,L24,L27
L29           2 S L28 AND CL/ELS
L30           9 S L28 AND O>=7
L31           1 S L30 AND PMS/CI
L32           8 S L30 NOT L31
L33          10 S L29,L32
L34          27 S L28 AND PMS/CI NOT L29-L33
L35          39 S L28 NOT L29-L34
L36           1 S L35 AND NCNC2/ES
L37          38 S L35 NOT L36

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L38           7 S L33 OR L36
L39           0 S L34
L40           7 S L38
L41           7 S L38,L40
                SEL AN
                EDIT E78-E84 /AN /OREF

     FILE 'HCAPLUS' ENTERED AT 07:20:14 ON 25 AUG 2004
L42          14 S E78-E84
                SEL DN AN 2 5 6 8 10 12 14
L43           7 S L42 NOT E85-E105
L44          12 S L33 OR L36
L45          15 S L34
L46          12 S L38
L47          28 S L43-L46

     FILE 'REGISTRY' ENTERED AT 07:23:11 ON 25 AUG 2004
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L48          38 S L21 OR L37

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L49           3 S L48 NOT L41
                SEL AN
                EDIT 3106-108 /AN /OREF E106-E108 /AN /OREF

     FILE 'HCAPLUS' ENTERED AT 07:30:34 ON 25 AUG 2004
L50           6 S E106-E108
                SEL AN 2 4 6
L51           3 S L50 NOT E109-E114
L52          30 S L47,L51
L53          22 S L48
L54          42 S L52,L53
L55           2 S L54 AND L1-L4
L56          37 S L54 AND (PD<=20010603 OR PRD<=20010603 OR AD<=20010603)
L57          38 S L55,L56
L58           4 S L54 NOT L57

     FILE 'HCAOLD' ENTERED AT 07:33:37 ON 25 AUG 2004
L59          10 S L41,L49

     FILE 'HCAPLUS' ENTERED AT 07:33:41 ON 25 AUG 2004
L60          10 S L43,L51
L61          10 S L54 AND L60
L62          28 S L57 NOT L61
L63          26 S L62 NOT L55


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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate
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assignees, and patent information, e.g., patent numbers, are
now searchable from 1907-1966.  TIFF images of CA abstracts
printed between 1907-1966 are available in the PAGE
display formats.

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all substance data from the REGISTRY file.  Enter HELP FIRST for
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=> d all hitstr tot l59

L59  ANSWER 1 OF 10  HCAOLD  COPYRIGHT 2004 ACS on STN
AN   CA64:12772h  CAOLD
TI   reaction of D-glucarolactone with amines
AU   Ide, Junji; Tanoura, A.; Takahashi, H.; Nakajima, Y.; Nitta, Y.
IT   2782-04-9   6614-38-6   6614-39-7   6614-40-0   6614-41-1   6614-42-2
     6614-43-3   6614-44-4   6614-45-5   6614-46-6
     6614-47-7   6614-48-8   6614-49-9   6614-50-2   6614-78-4  57495-63-3
IT   6614-44-4   6614-45-5
RN   6614-44-4  HCAOLD
CN   D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI)  (CA INDEX NAME)
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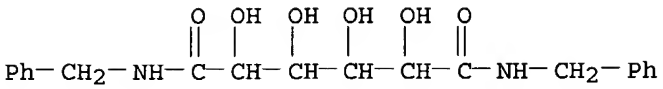
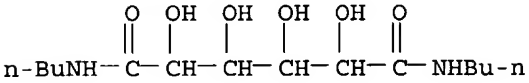
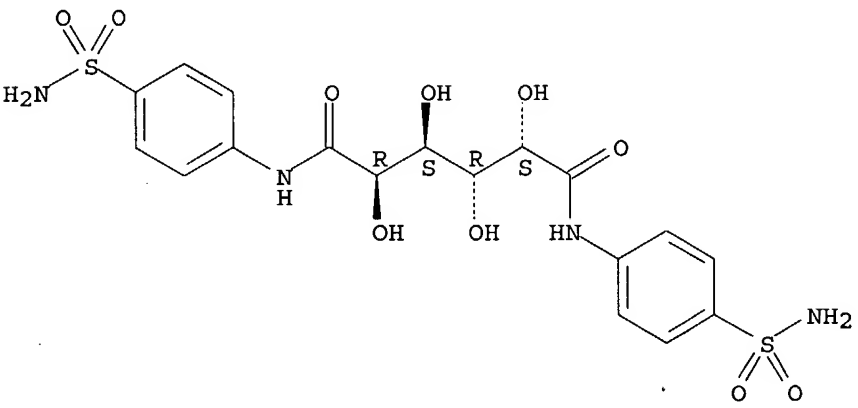


RN 6614-45-5 HCAOLD
CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



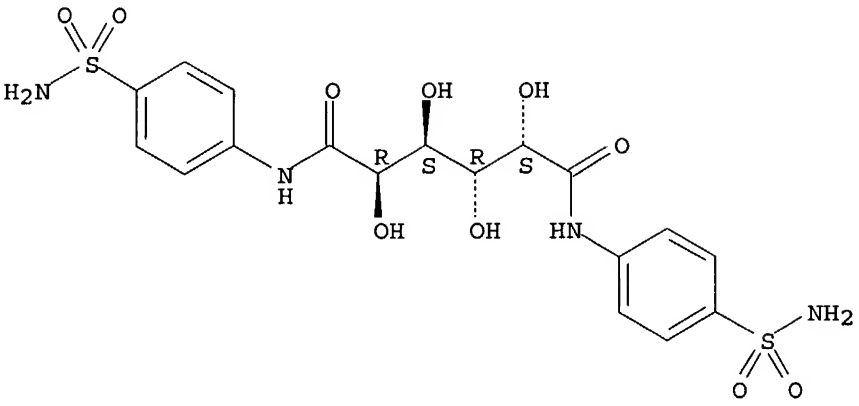
L59 ANSWER 2 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA60:644b CAOLD
TI location of the ring C hydroxyl group in fusidic acid
AU Arigoni, Duilio; Daehne, W. v.; Godtfredsen, W. O.; Marquet, A.; Melera, A.
IT 4779-72-0 4959-41-5 5160-18-9 5433-69-2 7356-85-6 11031-88-2
11031-92-8 24909-50-0 39765-41-8 45292-65-7 88893-08-7 91738-90-8
91839-97-3 93150-67-5 93150-68-6 93218-70-3 95132-99-3 95809-22-6
95809-23-7 97573-30-3 99786-16-0 **100977-53-5** 102900-47-0
105001-04-5 105067-88-7 105615-48-3 106822-41-7 107380-53-0 107655-48-1
107781-67-9 107801-56-9 107983-56-2 108189-39-5 108192-50-3 108266-57-5
IT **100977-53-5**
RN 100977-53-5 HCAOLD
CN Galactaranilide, 4',4''-disulfamoyl- (7CI) (CA INDEX NAME)

Relative stereochemistry.



L59 ANSWER 3 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA59:5248g CAOLD
TI derivs. of aldonic and aldaric acids
AU Bognar, Rezso; Farkas, I.; Szabo, I. F.; Szabo, G. D.
IT 5160-18-9 5433-69-2 7356-85-6 24758-64-3 24909-50-0 45292-65-7
88893-08-7 91738-90-8 91839-97-3 93150-67-5 93150-68-6 93218-70-3
95132-99-3 95809-22-6 95809-23-7 97573-30-3 99786-16-0
100977-53-5 105001-04-5 105067-88-7 106822-41-7 107801-56-9
IT **100977-53-5**
RN 100977-53-5 HCAOLD
CN Galactaranilide, 4',4''-disulfamoyl- (7CI) (CA INDEX NAME)

Relative stereochemistry.

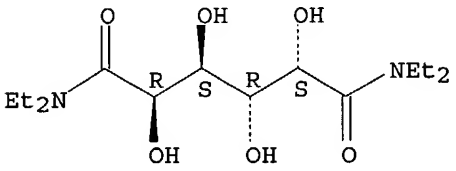


L59 ANSWER 4 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA55:16429a CAOLD
TI tetraacetylmucic acid with antiphlogistic action
AU Morel, Charles J.
PA Geigy, J. R., A.-G.
DT Patent

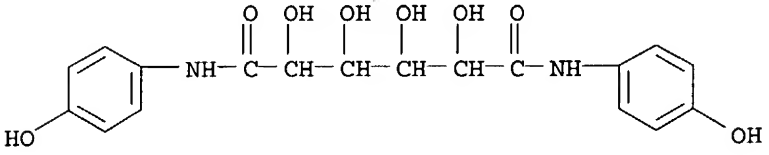
PATENT NO.	KIND	DATE
DE 1063145		
FR 1171953		

IT 5469-75-0 **109338-65-0**
IT **109338-65-0**
RN 109338-65-0 HCAOLD
CN Mucamide, N,N,N',N'-tetraethyl- (6CI) (CA INDEX NAME)

Relative stereochemistry.

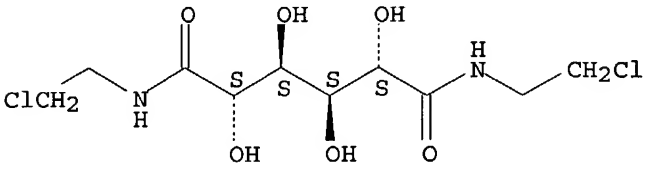


L59 ANSWER 5 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA52:7158d CAOLD
TI derivs. of D-glucaric acid
AU Totton, Ezra L.; Reid, W. E.
IT 2782-04-9 113114-92-4 **114382-71-7**
IT **114382-71-7**
RN 114382-71-7 HCAOLD
CN Saccharanilide, 4',4''-dihydroxy- (6CI) (CA INDEX NAME)

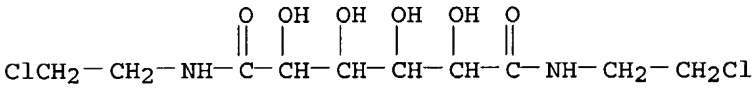


L59 ANSWER 6 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA51:18301i CAOLD
TI 1,6-bis(2-chloroethylamino)-1,6-deoxy-D-mannitol-Di-HCl, a new N mustard derivative
AU Kellner, Bela; Nemeth, L.
IT 55602-02-3 102443-86-7 108597-69-9 **109819-66-1** **109940-67-2**
IT **109819-66-1 109940-67-2**
RN 109819-66-1 HCAOLD
CN Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- (6CI) (CA INDEX NAME)

Absolute stereochemistry.

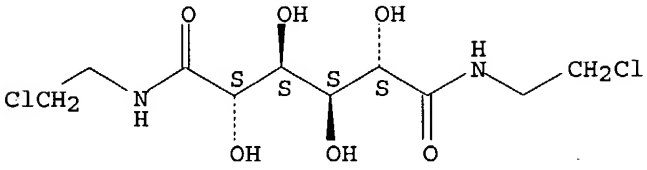


RN 109940-67-2 HCAOLD
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)



L59 ANSWER 7 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA51:11255h CAOLD
TI sugar derivative of cytostatic activity
AU Vargha, Laszlo
IT 16658-08-5 55602-02-3 95566-59-9 **109819-66-1** **109940-67-2** 118659-46-4
IT **109819-66-1 109940-67-2**
RN 109819-66-1 HCAOLD
CN Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- (6CI) (CA INDEX NAME)

Absolute stereochemistry.



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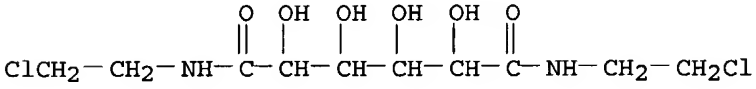
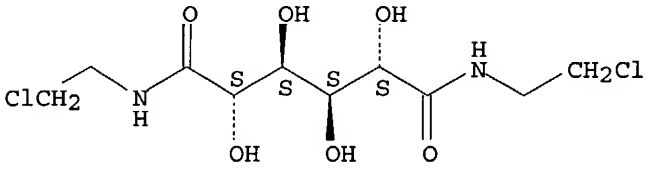
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)



L59 ANSWER 8 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN

AN CA51:9561f CAOLD
TI synthesis of new sugar derivs. with potential antitumor activity - (I) ethylenimino- and 2-chloroethylamino derivs.
AU Vargha, Laszlo; Toldy, L.; Feher, O.; Lendvai, S.
IT 13328-55-7 16658-08-5 26902-62-5 55602-02-3 63632-68-8 95566-59-9 109188-55-8 **109819-66-1** **109940-67-2** 110507-93-2
IT **109819-66-1** **109940-67-2**
RN 109819-66-1 HCAOLD
CN Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- (6CI) (CA INDEX NAME)

Absolute stereochemistry.



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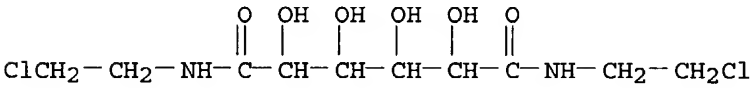
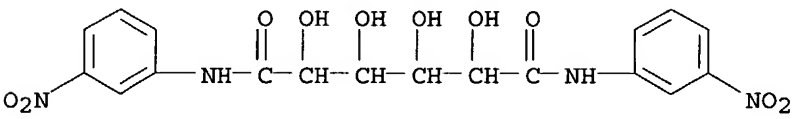
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)

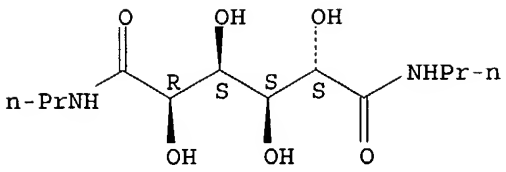


L59 ANSWER 9 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA51:5705a CAOLD
TI action of active N on organic compds.
AU Aronovich, P. M.; Bel'skii, N. K.; Mikhailov, B. M.
IT 931-54-4 6614-44-4 113114-92-4 **114329-73-6** 121970-51-2 121990-58-7
IT **114329-73-6**
RN 114329-73-6 HCAOLD
CN Saccharanilide, 3',3''-dinitro- (6CI) (CA INDEX NAME)



L59 ANSWER 10 OF 10 HCAOLD COPYRIGHT 2004 ACS on STN
AN CA51:5704d CAOLD
TI lactone acid esters and amides of D-saccharic acid
AU Zinner, Helmut; Fischer, W.
IT 2782-04-9 3303-04-6 22140-16-5 22188-73-4 98196-94-2 108751-34-4 108751-35-5 **108991-69-1** 109129-13-7 **109785-42-4** 111443-56-2 **113114-91-3** **119248-40-7** 119659-37-9 119659-38-0 119659-42-6 119659-43-7 122148-08-7 122148-10-1 122360-84-3 122360-89-8
IT **108991-69-1** **109785-42-4** **113114-91-3** **119248-40-7**
RN 108991-69-1 HCAOLD
CN D-Glucaramide, N,N'-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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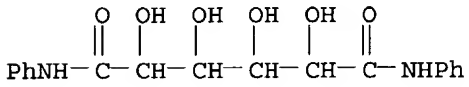
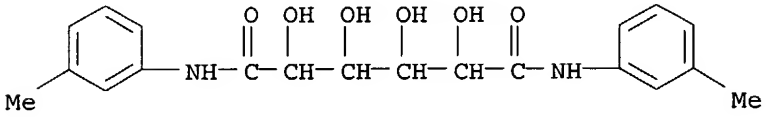
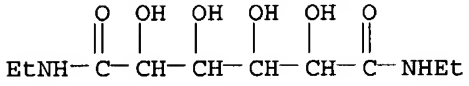
CN Saccharanilide (6CI) (CA INDEX NAME)



RN 113114-91-3 HCAOLD
CN m-Saccharotoluidide (6CI) (CA INDEX NAME)



RN 119248-40-7 HCAOLD
CN Saccharamide, N,N'-diethyl- (6CI) (CA INDEX NAME)



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FILE LAST UPDATED: 24 Aug 2004 (20040824/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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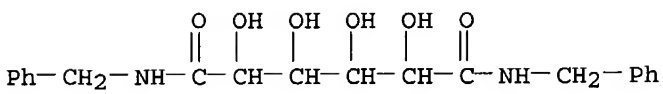
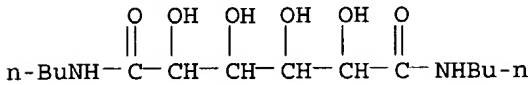
L61 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1966:68131 HCAPLUS
DN 64:68131
OREF 64:**12772h,12773a-b**
ED Entered STN: 22 Apr 2001
TI Reaction of D-glucarolactone with amines
AU Ide, Junji; Tanoura, Arata; Takahashi, Hidenori; Nakajima, Yasuo; Nitta, Yoshihiro
CS Chugai Pharm. Co., Tokyo
SO Yakugaku Zasshi (1966), 86(1), 31-6
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Japanese
CC 43 (Carbohydrates)
AB Into 5 g. D-glucaro-6,3-lactone (I) suspended in 25 ml. 50% MeOH is dropped 4.2 ml. 28% NH4OH, the whole stirred 2 hrs., kept overnight, concentrated in vacuo at <50°, and the resulting sirup dissolved in 50 ml. H2O, passed through a column of Amberlite IR-120, and concentrated in vacuo at <40° to give 2.5 g. D-glucar-6-amide, which is recrystd. (dilute MeOH) to give monoammonium D-glucarate (II), m. >230° (decomposition). Similar treatment of I with PhCH2NH2, BuNH2, and cyclohexylamine gives N-benzyl-D-glucar-6-amide (III) (flakes, m. 147-8°), N-butyl-D-glucar-6-amide (IV) (flakes, m. 85-8°), and N-cyclohexyl-D-glucar-6-amide (cyclohexylamine salt m. 184-5°), resp. III (1 g.) in 40 ml. 70% dioxane is refluxed for 2 hrs. to give 570 mg. N,N'-dibenzyl-D-glucaramide (V), flakes, m. 201-2° (dilute MeOH). Similarly is prepared N, N'-dibutyl-D-glucaramide (VI) (m. 179-80°) from IV. Treatment of D-glucaro-1,4-lactone (VII) with RNH2 gives the following N-R-substituted-D-glucar-1-amide 6,3-lactone (R, % yield, and m.p. given): PhCH2 (VIII), 69, 171°; Bu (IX), --, 148-9°, hexyl, --, 158-60°. Heating VIII and IX gives V and VI, resp. Treatment of VII with NH3 gives D-glucar-1-amide (m. 140-1°) which is converted to II when heated.
IT Amines
(reactions of, with D-glucaric acid γ-lactones)
IT Benzylamine, compound with N-benzyl-D-glucar-6-amic acid
Cyclohexylamine, compds. with N-cyclohexyl-D-glucar-6-amic acid (1:1)
Glucar-1-amic acid, D-
Glucaric acid, ammonium salt, D-
IT 2782-04-9, Glucaric acid, 6,3-lactone, D- 6614-38-6, Glucar-6-amic acid, D- 6614-40-0, Glucar-6-amic acid, N-benzyl-, D- 6614-41-1, Glucar-6-amic acid, N-butyl-, D- 6614-42-2, Glucar-6-amic acid, N-cyclohexyl-, D- 6614-43-3, Glucar-6-amic acid, N-cyclohexyl-, compound with cyclohexylamine (1:1), D- **6614-44-4**, Glucaramide, N,N'-dibenzyl-, D- **6614-45-5**, Glucaramide, N,N'-dibutyl-, D- 6614-46-6, Glucar-1-amic acid, N-benzyl-, γ-lactone, D- 6614-47-7, Glucar-1-amic acid, N-butyl-, γ-lactone, D- 6614-48-8, Glucar-1-amic acid, N-hexyl-, γ-lactone, D- 6614-49-9, Glucar-6-amic acid, isopropyl ester D- 6614-50-2, Glucaramide, D- 6614-78-4, Glucar-6-amic acid, N-benzyl-, compound with benzylamine (1:1), D-
(preparation of)
IT 389-36-6, Glucaric acid, 1,4-lactone
(reaction with amines)
IT **6614-44-4**, Glucaramide, N,N'-dibenzyl-, D- **6614-45-5**, Glucaramide, N,N'-dibutyl-, D-
(preparation of)
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 6614-45-5 HCAPLUS
CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



L61 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1964:3519 HCAPLUS
DN 60:3519
OREF 60:**644b-e**
ED Entered STN: 22 Apr 2001
TI Location of the ring C hydroxyl group in fusidic acid
AU Arigoni, D.; von Daehne, W.; Godtfredsen, W. O.; Marquet, Andree; Melera, A.
CS Eidg. Tech. Hochschule, Zuerich, Switz.
SO Experientia (1963), 19(10), 521-2
CODEN: EXPEAM; ISSN: 0014-4754
DT Journal
LA English
CC 42 (Steroids)
GI For diagram(s), see printed CA Issue.
AB cf. CA 58, 1505b. By the double irradiation technique (Freeman and Whiffin, CA 56, 11096c), it could be shown that in the nuclear magnetic resonance spectrum of dihydrofusidic acid Me ester there is no spin-spin interaction between the protons on the C atoms hearing OH groups (δ = 3.80 and 4.40) and the C-13 proton (δ = 3.02). Dehydration of 16-deacetyldihydrofusidic acid lactone 3-acetate (I), m. 183-4°, λ (EtOH) 223 mμ (ε 14,000), [α]D 44° (CHCl3), with SOCl2-C5H5N at -20° gave II, m. 143-4°, λ (EtOH) 221 mμ (ε 15,500), [α]D 26° (CHCl3), containing only 1 olefinic proton (signal at δ = 5.50), having the same chromophore as I. CrO3 oxidation of I gave the corresponding ketone (III), m. 153-4°, λ (EtOH) 222 mμ (ε 13,800), [α]D 113° (CHCl3). Dehydrogenation of III with SeO2 in 99:1 tert-BuOH-AcOH gave IV, m. 188-9°, λ (EtOH) 280 mμ (ε 17,500), [α]D -358° (CHCl3). From these results and from previous expts., fusidic acid had the revised constitution V.
IT Spectra, visible and ultraviolet
(of fusidic acid derivs.)
IT Nuclear magnetic resonance
(of methyl dihydrofusidate)
IT 29-Nor-8ξ,9ξ,13ξ,14ξ-dammar-17(20)-en-21-oic acid, 3α,16α-dihydroxy-11-oxo-, γ-lactone, acetate
IT 6990-06-3, Fusidic acid
(identity with 3α,11,16α-trihydroxy-29-nor-8ξ,9ξ,-13ξ,14ξ-dammara-17(20),24-dien-21-oic acid 16-acetate)
IT 4779-72-0, Fusidic acid, dihydro-, methyl ester
(nuclear magnetic resonance of)
IT 4959-41-5, Fusidic acid, 16-deacetyldihydro-, γ-lactone, 3-acetate 107380-53-0, 29-Nor-8ξ,9ξ,13ξ,14ξ-dammara-17(20),24-dien-21-oic acid, 3α,11,16α-trihydroxy-, 16-acetate 107655-48-1, 29-Nor-8ξ,9ξ,14ξ-dammara-12,17(20)-dien-21-oic acid, 3α,16α-dihydroxy-11-oxo-, γ-lactone, acetate 107983-56-2, 29-Nor-8ξ,13ξ,14ξ-dammara-9(11),17(20)-dien-21-oic

acid, 3α,16α-dihydroxy-, γ-lactone, acetate
(preparation of)
IT 221-25-0, 1H-Naphth[2',1':4,5]indeno[2,1-b]furan
(triterpenoid derivs.)

L61 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1963:428779 HCAPLUS
DN 59:28779
OREF 59:**5248f-h,5249a-c**
ED Entered STN: 22 Apr 2001
TI Derivatives of aldonic and aldaric acids
AU Bognar, Reyso; Farkas, Istvan; Szabo, Ilona F.; Szabo, Giyella D.
CS Univ. Debrecen, Hung.
SO Ber. (1963), 96, 689-93
DT Journal
LA Unavailable
CC 43 (Carbohydrates)
AB Heating 1 g. penta-O-acetylD-galactonic acid (I) and 1 ml. MeOCHCl2 (II) 1 hr. on a water bath, concentrating at 50°, and recrystg. from Et2O-ligroine gave 92% I chloride, m. 80°, [α]D, 3.4° (c 3, CHCl3). Octa-O-acetylcellobionyl chloride (III), 92.7% yield, m. 115°, [α]D, 2.1° (c 2.4, CHCl3). Heating 1 g. tetra-O-acetylgalactaric acid (IV), 2 g. II, and a trace ZnCl2 1 hr. and recrystg. front C6H6 gave 75% IV diacid chloride, m. 178-9°. Reaction of 1 g. chloride in 10 ml. Me2CO and 0.3-0.4 g. NaN in 2 ml. H2O 30 min. at 0° and crystallization of the precipitate from Me2CO-H2O gave the azide, stable when stored over KOH; the following were prepared (yield, m.p., and [α]D given): I azide, 87%, 104-5°, 2.6° (c 1.95, Me2CO); III azide analog, 63.7%, 112°, 12.9° (c 1.32, CHCl3): penta-Oacetyl-D-gluconyl azide (V), 72.7%, 89°, 17° (c 1.71, CHCl3). Heating 0.72 g. V with 20 ml. EtOH 3 hrs., concentration to 4 ml., addition of H2O, and crystallization of the precipitate from aqueous EtOH gave 0.4 g. 2,3,4, 5,6-pent a- O- acetyl - N- ethoxycarbonyl -D- gluconamide, m. 11718°, [α]D 27.2° (c 1, CHCl3) the other azides gave sirupy products. Reaction of 1 g. chloride in 4 ml. CHCl3 with 1 ml. PhNH2 1 hr., concentration, rubbing the residue with 1% HCl, and crystallization from dilute EtOH gave the anilide [acetylated anilide, % yield, m.p., [α] D, yield deacetylated anilide (from NaOMe 16 hrs. at 0°/, m .p. and [α] D given]: I anilide, 79.3%, 172-3°, 65.2° (c 0.9, CHCl3), 81.4%, 209°, 58° (c 0.4, H2O); III anilide analog, 83.9%, 154°, 43.7° (c 0.8, CHCl3) sirup, -, -; IV dianilide, 67.5%, decomposed .apprx.300°, -, 81.9)%, 248-9% -; V anilide analog, 75.7%, 156°, 38.6° (c 1.5, CHCl3), 73%, 171°, 51.3° (c 1.13, H2O). Reaction of the chloride in Me,CO with 2 equivs. sulfanilamide (VI) 1 hr., filtration from VI.HCl, concentration, and crystallization from dilute EtOH gave the 4-aminosulfonylanilide (Z derivative). Products (same data given): I Z derivative, 87.6%, 196-7°, 32.8° (c 1.3, Me2CO), 75.2%, 221°, 52.8° (c 1.44, 0.1N NaOH); III Z analog, 84.5%, 126-8°, 17.4° (c 1, CHCl3), sirup, -, -; IV bis(Z derivative), 69.5%, 300-2° (decomposition), -, 82%, 259°, -; V Z analog, 69.6%, 149°, 21.5° (c 1.5, Me2CO), 90.5%o, 198°, 46.8° (c 1, H2O). The IV bis(Z derivative) was prepared in C5H5N-Me2CO; this and the IV anilide were deacetylated by 24-hr. shaking with NaOMe at 25°. III, prepared in 670% yield from 7 g. III amide analog in 35 ml. HOAc saturated at 0° with N2O3 and the mixture shaken 4.5 hrs. at 25°, m. 138°, [α] D) 8.9° (c 1.76, CHCl3). Reaction ot 0.5 g. I azide in 10 ml. EtOAc at 0° with 0.5 ml. PhNH2 3 hrs. gave 69% anilide; V azide analog gave 73% V anilide analog. The azides and VI gave no products. Heating 3 g. V azide analog

with 1.5 ml. PhCH2OH at 100°, concn, in vacuo, hydrogenation in EtOH over Pd-C 5-7 hrs. at 1 atmospheric, concentration at 50°, heating the residue with 10% NaOH at 40° 2 hrs. (NH3 evolved), and treatment with PhNHNH2 and aqueous HOAc 1 hr. at 100° gave 15% D-arabinose phenylosazone, m. 154-6°.

IT Aldaric acids
Aldonic acids
(derivs.)

IT Galactaranilide, 4',4"-disulfamoyl-
Galactaranilide, 4',4"-disulfamoyl-, tetraacetate
Galactonanilide, pentaacetate, D-
Galactonanilide, D-
Galactonanilide, 4'-sulfamoyl-, pentaacetate, D-
Galactonanilide, 4'-sulfamoyl-, D-
Galactonoyl azide, pentaacetate, D-
Galactonoyl chloride, pentaacetate, D-
Gluconanilide, pentaacetate, D-
Gluconanilide, 4'-sulfamoyl-, pentaacetate, D-
Gluconanilide, 4'-sulfamoyl-, D-
Gluconoyl azide, pentaacetate, D-
D-Glucose, 2-acetamido-3-O-(1-carboxyethyl)-2-deoxy-, lactone, diacetate
D-Glucose, 2-acetamido-3-O-(1-carboxyethyl)-2-deoxy-, methyl ester
D-Glucose, 2-acetamido-3-O-(1-carboxyethyl)-2-deoxy-, methyl ester, triacetate, α-
D-Glucose, 2-acetamido-3-O-(1-carboxyethyl)-2-deoxy-, methyl ester, triacetate, β-

IT 2494-51-1, D-Glucose, 2-amino-3-O-(1-carboxyethyl)-2-deoxy-
(derivs.)

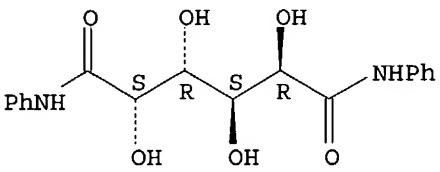
IT 147-81-9, Arabinose
(formation of, from D-gluconoyl azide pentaacetate)

IT 5160-18-9, Galactaranilide, tetraacetate 10597-89-4, D-Glucose, 2-acetamido-3-O-(D-1-carboxyethyl)-2-deoxy- 24758-64-3, Gluconanilide, D- 24909-50-0, Cellobionoyl azide, octaacetate 45292-65-7, Galactaroyl chloride, tetraacetate 88893-08-7, Carbamic acid, (D-gluco-pentahydroxypentyl)-, ethyl ester, pentaacetate 97573-30-3, Cellobionanilide, 4'-sulfamoyl-, octaacetate **99786-16-0**, Galactaranilide 105001-04-5, Cellobionic acid, octaacetate 105067-88-7, Cellobionoyl chloride, octaacetate 107801-56-9, Cellobionanilide, octaacetate
(preparation of)

IT **99786-16-0**, Galactaranilide
(preparation of)

RN 99786-16-0 HCAPLUS
CN Galactaranilide (7CI) (CA INDEX NAME)

Relative stereochemistry.



L61 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1961:87166 HCAPLUS
DN 55:87166
OREF 55:**16429a-c**
ED Entered STN: 22 Apr 2001
TI Tetraacetylmucic acid with antiphlogistic action
IN Morel, Charles J.

PA J. R. Geigy Akt.-Ges.
DT Patent
LA Unavailable
NCL 120
CC 10B (Organic Chemistry: Aliphatic Compounds)
FAN.CNT 1

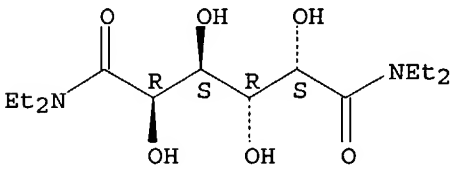
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 1063145		19590813	DE	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 1063145	NCL	120

AB Mucic diamides were treated with acetyl halides in the presence of a tertiary base, optionally in inert solvents, at a low temperature, and slowly heated at higher temperature to complete the acetylation. Di-Et mucate (m. 172°) 26.6 was stirred with 100% freshly distilled Et2NH 15 parts. The solidified mass was triturated with Et2O, and the solid washed with Et2O and cold EtOH to give mucic acid bis(diethylamide) m. 197-8° (EtOH). The diamide 16, was suspended in a solution of pyridine 17 in CHCl3 300, stirred well and treated dropwise at 0-10° with AcCl 17 parts, slowly heated at room temperature, stirred at room temperature at 1 hr., stirred and refluxed for 2 hrs., washed with N HCl, saturated NaHCO3 and H2O until neutral, dried over Na2SO4, evaporated in vacuo at 30-40°, recrystd. from EtOH and dried in vacuo over CaCl2 to give tetra-O-acetylmucic acid bis(diethylamide), m. 194-6°.
IT Antipyretics
(mucic acid derivs.)
IT 5469-75-0, Mucic acid, tetraacetate **109338-65-0**, Mucamide, N,N,N',N'-tetraethyl- 116604-00-3, Mucamide, N,N,N',N'-tetraethyl-, tetraacetate
(preparation of)
IT **109338-65-0**, Mucamide, N,N,N',N'-tetraethyl-
(preparation of)
RN 109338-65-0 HCAPLUS
CN Mucamide, N,N,N',N'-tetraethyl- (6CI) (CA INDEX NAME)

Relative stereochemistry.



L61 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1958:40275 HCAPLUS
DN 52:40275
OREF 52:**7158d-g**
ED Entered STN: 22 Apr 2001
TI Derivatives of D-glucaric acid
AU Totton, Ezra L.; Reid, W. E.
CS North Carolina Coll., Durham
SO Journal of Organic Chemistry (1957), 22, 1104
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
OS CASREACT 52:40275

AB Aromatic diamides of D-glucaric acid less labile to alkaline hydrolysis than the extremely labile aliphatic diamides and giving good yields of Ac derivs. without hydrolysis of the amide linkage were prepared Starch (800 g.) and 6.4 l. HNO3 (d. 1.100) evaporated in a fume hood to 2 l., the cooled filtered solution kept 12 hrs. at 0°, filtered free from (CO2H)2, the filtrate diluted with 2.4 l. H2O, heated to boiling, neutralized to litmus with saturated aqueous K2CO3, the dark red solution acidified to pH 4.5 with AcOH, evaporated to 1.5 l., shaken with 800 ml. 1:1 AcOH-H2O, filtered, and the solid washed several times with 200 ml. 1:1 AcOH-H2O yielded 225 g. K acid glucarate (I). Distilled H2O (500 ml.) containing 122 ml. concentrated H2SO4 added to 460 g. I, the solution concentrated to a thick sirup in vacuo, the sirup stirred with 4 l. 95% alc., filtered free from the KHSO4, the filtrate concentrated to a sirup, more KHSO4 filtered off, the sirup taken up in 500 ml. distilled H2O, the solution concentrated in vacuo, and the sirup heated 3 hrs. at 100° in vacuo gave D-glucaric acid lactone (II). Boiling absolute alc. (2 l.) containing 348 g. II stirred vigorously with addition of 500 g. p-MeC6H4NH2 in 500 ml. boiling alc., the mixture concentrated 6 hrs., filtered, and the crystalline product triturated twice with 500 ml. hot absolute alc. and filtered yielded 493 g. p-D-glucarotoluidide (III), m. 228° (dioxane). Similarly was prepared 4',4''-dihydroxy-D-glucaranilide (IV), m. 290° (hot H2O). III (393 g.) treated with 826 g. C5H5N and 806 g. Ac2O (exothermic warming), the solution kept 20 hrs. at room temperature, poured slowly into 3 l. ice H2O with rapid stirring, stirring continued 6 hrs., the solution filtered, the precipitate taken up in 2 l. hot Me2CO, the solution treated with Norit, filtered, and the filtrate diluted with H2O and filtered yielded 446 g. p-D-glucarotoluidide tetraacetate, m. 215°. Similarly from IV was prepared 4',4''-diacetoxy-D-glucaranilide tetraacetate, m. 193-4° (alc.).

IT 107-13-1, Acrylonitrile
(3-acyl derivs.)

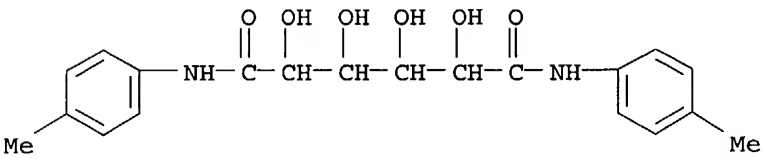
IT 87-73-0, Saccharic acid
(derivs.)

IT **113114-92-4**, p-Saccharotoluidide **114382-71-7**, Saccharanilide, 4',4''-dihydroxy- 117888-60-5, Saccharanilide, 4',4''-dihydroxy-, hexaacetate 122147-46-0, p-Saccharotoluidide, tetraacetate
(preparation of)

IT **113114-92-4**, p-Saccharotoluidide **114382-71-7**, Saccharanilide, 4',4''-dihydroxy-
(preparation of)

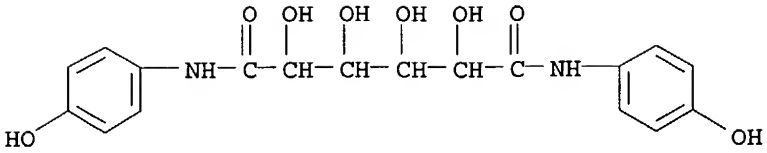
RN 113114-92-4 HCAPLUS

CN p-Saccharotoluidide (6CI) (CA INDEX NAME)

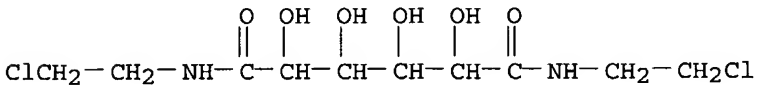


RN 114382-71-7 HCAPLUS

CN Saccharanilide, 4',4''-dihydroxy- (6CI) (CA INDEX NAME)



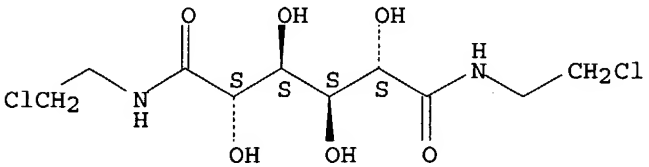
L61 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:101196 HCAPLUS
DN 51:101196
OREF 51:**18301i,18302a-b**
ED Entered STN: 22 Apr 2001
TI 1,6-Bis(2-chloroethylamino)-1,6-deoxy-D-mannitol dihydrochloride (BCM), a new nitrogen mustard derivative
AU Kellner, Bela; Nemeth, Laszlo
CS Central Oncol. Inst., Budapest
SO Z. Krebsforsch. (1956), 61, 165-79
DT Journal
LA German
CC 11H (Biological Chemistry: Pharmacology)
AB cf. C.A. 51, 16915f. Of 6 new mustard derivs. of carbohydrates [ethyleneimino(monoacetonyl)glucose, an unidentified diepoxide, gluconic acid chloroethylamide, glucosaccharic acid chloroethylamide, mannosaccharic acid chloroethylamide, and BCM] only BCM showed consistent and significant antitumor effects. BCM was considered superior to methylbis(2-chloroethyl)amine in carcinostatic and hematological effects, with much lower toxicity and a wider range of clinical usefulness. The intravenous maximum tolerated dose of BCM was 50 mg./kg. for rats and mice, 25 for rabbits, and 20 for dogs; the L.D.50 for these animal species was 80, 100, 50, and 50, and the therapeutic dose 15, 20, 10, and 5 mg./kg. Carcinostasis was demonstrated with the Guerin carcinoma and M-1 sarcoma in rats and Sarcoma 180 and Ehrlich ascites carcinoma in mice. BCM also inhibited the formation of metastases after inoculation of the Guerin carcinoma.
IT Glucoside, aziridine-1 O-isopropylidene-, D-
Mannitol, 1,6-bis[(2-chloroethyl)amino]-1,6-dideoxy-, D-, dihydrochloride
Mannosaccharamide, N,N'-bis(2-chloroethyl)-
(in neoplasm treatment)
IT BCM
(neoplasm response to)
IT 55602-02-3, Gluconamide, N-(2-chloroethyl)- 108597-69-9, Aziridine, 1-(1-deoxy-O-isopropylideneglucosyl)- **109940-67-2**, Saccharamide, N,N'-bis(2-chloroethyl)-
(in neoplasm treatment)
IT **109940-67-2**, Saccharamide, N,N'-bis(2-chloroethyl)-
(in neoplasm treatment)
RN 109940-67-2 HCAPLUS
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)



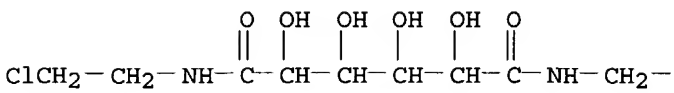
L61 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:62114 HCAPLUS
DN 51:62114
OREF 51:**11255h-i,11256a**
ED Entered STN: 22 Apr 2001
TI A new sugar derivative of cytostatic activity

AU Vargha, L.
CS Forsch. Inst. Pharm. Ind., Budapest
SO Naturwissenschaften (1955), 42, 582
CODEN: NATWAY; ISSN: 0028-1042
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB New compds. tested were 1,2-isopropylidene-6-ethyleneimino-6-deoxy-D-glucofuranose (I), m. 131-2° (from C6H6), αD20 17.1(CHCl3), -8.0 (H2O), 1,6-bis(ethyleneimino)-1,6-deoxy-3,4-isopropylidene-D-mannitol (II), sirupy, αD20 51.6 (CHCl3). Both compds. were made from the isopropylidene anhydro compound or the dianhydro isopropylidene compound, resp., by introduction of 1 or 2 ethyleneimine mols. Treatment of II with HCl gave 1,6-bis(β chlorethylamino)-1,6-deoxy-D-mannitol dichlorohydrate (III), m. 240-1° (from dilute EtOH), αD20 18.46 (H2O). From the corresponding lactones were prepared D-gluconic acid β-chlorethylamide (IV), m. 144-5° (from MeOH), αD20 28.18 (H2O), and D-glucosaccharic acid bis(β-chlorethylamide) (V), m. 172-4°, (from MeOH), αD20 22.15 (MeOH). From the CaCl2 compds. of glucosaccharic acid di-Et ester and from D-tartaric acid di-Et ester, resp., were prepared D-mannosaccharic acid bis(β-chlorethylamide) (VI), m. 172-4° (from MeOH), αD20 -26.38 (MeOH), and D-tartaric acid bis(β-chlorethylamide) (VII), m. 191-2° (from MeOH). I and III have decided cytostatic effect, acid amides IV, V, and VI have little activity, II is too instable.
IT Cells
(-division inhibitors, sugar derivs. as)
IT Sugars
(derivs., with cytostatic activity)
IT Glucofuranose, 6-(1-aziridinyl)-6-deoxy-1,2-O-isopropylidene-, D-
Gluconamide, N-(2-chloroethyl)-, D-
Mannitol, 1,6-bis[(2-chloroethyl)amino]-1,6-dideoxy-, D-, dihydrochloride
IT 16658-08-5, Mannitol, 1,6-bis(1-aziridinyl)-1,6-dideoxy-3,4-O-isopropylidene-, D- **109819-66-1**, Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- **109940-67-2**, Saccharamide, N,N'-bis(2-chloroethyl)- 118659-46-4, Tartramide, N,N'-bis(2-chloroethyl)-, D-
(preparation of)
IT 151-56-4, Ethylenimine
(sugar derivs., with cytostatic activity)
IT **109819-66-1**, Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D-
109940-67-2, Saccharamide, N,N'-bis(2-chloroethyl)-
(preparation of)
RN 109819-66-1 HCAPLUS
CN Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- (6CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 109940-67-2 HCAPLUS
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)



L61 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:51790 HCAPLUS
DN 51:51790
OREF 51:**9561e-i,9562a-f**
ED Entered STN: 22 Apr 2001
TI Synthesis of new sugar derivatives with potential antitumor activity. I. Ethylenimino and 2-chloroethylamino derivatives
AU Vargha, L.; Toldy, L.; Feher, O.; Lendvai, S.
CS Research Inst., Pharm. Ind., Budapest
SO Journal of the Chemical Society, Abstracts (1957) 805-9
CODEN: JCSAAZ; ISSN: 0590-9791
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB Since natural amino acids and sugars pass readily through the cell membrane their derivs. should provide cytoactive substances of stronger activity and greater selectivity. Ethylenimine (I) (15 ml.) added to 10 g. 5,6-anhydro-1,2-O-isopropylidene-D-glucofuranose in 25 ml. anhydrous Et2O, the solvent evaporated after 4 days at room temperature, and the initially sirupy residue recrystd. from hot C6H6 gave 8 g. 6-dideoxy-6-ethylenimino-1,2-O-isopropylidene-D-glucofuranose (II), m. 131-2°, [α]D20 17.1° (c 2.916, CHCl3), -8.0° (c 2.534, H2O), stable for years; the Me2CH group was not removed by hydrolysis without simultaneous cleavage of the ethyleneimino ring. I (30 ml.) and 20 g. 1,2,5,6-dianhydro-3,4-O-isopropylidene-D-mannitol kept overnight below 50° (exothermic reaction), evaporated in vacuo, the sirupy residue evaporated twice from MeOH to eliminate I, and the sirup purified without crystallization gave sirupy 1,6-dideoxy-1,6-diethylenimino-3,4-O-isopropylidene-D)-mannitol (III), [α]D20 51.6° (c 1.835, CHCl3), unstable and polymerizing to a H2O-insol. glass in a few days. III (20 g.) in 20 ml. MeOH stirred slowly at 0° with 80 ml. concentrated HCl, the mixture kept at 0° and filtered, the precipitate washed with concentrated HCl and 80% alc., dried in vacuo over KOH and recrystd. from 75-80% alc. gave 20 g. 1,6-di(2-chloroethylamino)-1,6-dideoxy-D-mannitol di-HCl salt (IV), m. 239-41° (decomposition), [α]D20 18.46° (c 1.812, H2O), converted by adding 2.5 ml. 2N NaOH to 0.945 g. salt in 3 ml. H2O at 0° to 0.6 g. base, m. 278° (decomposition). The structures of III and IV were confirmed by synthesis since the 50% yield of III indicated possible formation of isomers. HOCH2CH2NH2 (IVa) (10 g.) and 4 g. 2,3,4,5-di-O-methylene-D-mannitol 1,6-di-p-toluenesulfonate heated 8 hrs. at 150-60°, the cooled mixture warmed 30 min. at 90-5° with 5 g. Ba(OH)2.H2O in 40 ml. H2O, the mixture evaporated at 1-3 mm., the residue extracted 4 times with 50-ml. portions MeCH(OH)CH2OH and the extracted evaporated gave 2 g. sirupy 1,6-dideoxy-1,6-di(2-hydroxyethylamino)-2,3,4,5-di-O-methylene-D-mannitol (V); bis(H oxalate), m. 190° (decomposition). V (1.8 g.) evaporated in vacuo with 16 ml. N HCl, the residue treated 30 min. at 65° with 20 ml. SOCl2, the mixture evaporated in vacuo, the residue boiled 16 hrs. with 10% HCl, treated with C, evaporated in vacuo and the residue recrystd. from 70% alc. yielded IV, m. 240-2°, [α]D20 18.6° (c 1.80, H2O). IVa (30 ml.) and 5 g. di-O-benzylidene-D-mannitol 1,6-di-p-toluenesulfonate heated 8 hrs. at 150-60° and worked up as above gave 3.3 g. sirup [bis(H oxalate), m. 212-14°, [α]D20 49.3° (c 0.772, H2O)] converted by boiling 15 min. with 30 ml. SOCl2 and working up to give IV, m. 239-41° (decomposition),

[α]D20 18.4° (c 1.82, H2O). To decide whether or not the presence of HO groups plays a role in the antitumor activity, the HO-free analog of IV and a lower homolog were prepared from (CH2)6Cl2 (VI) and ClCH2CH2Cl (VII), resp. VI (40 g.) added dropwise with stirring in 20 min. to 100 ml. IVa at 120-30°, the mixture kept 6 hrs. at 150-60°, the cooled mixture kept several hrs. at 0° with 25 g. NaOH in 500 ml. MeOH, filtered, the filtrate evaporated and the residue fractionated gave 17 g. 1,6-di(2-hydroxyethylamino)hexane (VIa), m. 78-80° (from alc.). VIa (10 g.) boiled 100 min. with 100 ml. SOCl2, the mixture evaporated, and the residue triturated with MeCH(OH)CH2OH, filtered and the precipitate extracted with 2 l. hot MeCH(OH)CH2OH, the extract kept 20 hrs. at 0°, filtered and the precipitated 1,6-di(2-chloroethylamino)hexane-2HCl (VIb) extracted twice with the mother liquor yielding 4-5 g. VIb, m. 250-3° (decomposition). Similarly VII was converted to 1,2-di(2-chloroethylamino)ethane-2HCl (VIIa), m. 210-12° (decomposition). ClCH2CH2NH2.HCl (18.47 g.) and 24.82 g. D-gluconolactone in 600 ml. MeOH stirred with NaOMe (from 3.4 g. Na in 60 ml. MeOH), the mixture kept overnight, filtered, the precipitate washed with H2O and MeOH and the dried product crystallized from MeOH gave 20 g. N-2-chloroethyl-D-gluconamide, m. 144-5°, [α]D20 28.18° (c 1.856, H2O). Similarly were prepared N,N'-di(2-chloroethyl)-D-saccharodiamide, m. 173-4° (decomposition), [α]D20 22.15° (c 0.50, MeOH), and N,N'-di(2-chloroethyl)-D-mannosaccharodiamide, m. 179-80° (decomposition), [α]D20 -26.38° (c 0.50, MeOH). VIb, VIIa, and the amides had no inhibiting activity on Guerin rat carcinoma, N-1 rat sarcoma, Crocker mouse sarcoma or Ehrlich ascites tumor in doses up to 50 mg./kg. whereas II was slightly active and daily doses of 10-20 mg. IV/kg. gave 75% inhibition (LD50 60-80 mg. in mice or rats). Clinically IV is suitable mainly for therapy of malignant hematological diseases and in cases resistant to x-ray irradiation and nitrogen mustard. IV with 2 secondary N atoms represents a new type of biol. alkylating agent with antitumor activity. Since VIb proved inactive, the presence of HO groups seems indispensable for cyto activity in this type of compound

IT Neoplasms
(inhibitors of, sugar derivs. as)

IT Sugars
(with neoplasm-inhibiting activity)

IT 1,6-Hexanediamine, N,N-bis(2-chloroethyl)-, dihydrochloride
Glucofuranose, 6-(1-aziridinyl)-6-deoxy-1,2-O-isopropylidene-, D-
Gluconamide, N-(2-chloroethyl)-, D-
Mannitol, 1,6-bis[(2-chloroethyl)amino]-1,6-dideoxy-, D-, dihydrochloride
Mannitol, 1,6-dideoxy-1,6-bis(2-hydroxyethylamino)-2,3:4,5-di-O-methylene-, bis(H oxalate)
Oxalic acid, compound with 1,6-dideoxy-1,6-bis(2-hydroxyethylamino)-2,3:4,5-di-O-methylene-D-mannitol

IT Glucosylamine, N,N-bis(2-chloroethyl)-, D-
(derivs.)

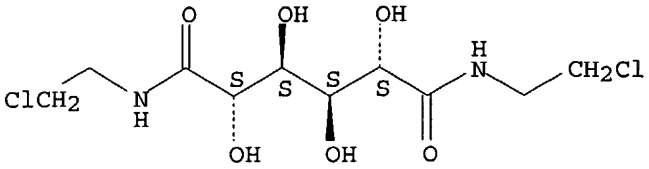
IT 533-75-5, Tropolone 539-80-0, 2,4,6-Cycloheptatrien-1-one 544-25-2, 1,3,5-Cycloheptatriene
(derivs.)

IT 13328-55-7, Ethanol, 2,2'-(hexamethylenediimino)di- 16658-08-5, Mannitol, 1,6-bis(1-aziridinyl)-1,6-dideoxy-3,4-O-isopropylidene-, D- 63632-68-8, Ethylenediamine, N,N'-bis(2-chloroethyl)-, dihydrochloride 109188-55-8, Mannitol, 1,6-dideoxy-1,6-bis(2-hydroxyethylamino)-2,3:4,5-di-O-methylene-, D- **109819-66-1**, Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- **109940-67-2**, Saccharamide, N,N'-bis(2-chloroethyl)-
(preparation of)

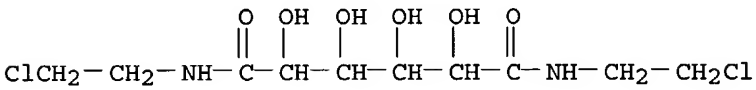
IT 151-56-4, Ethylenimine 251-39-8, Furo[2,3-d]-1,3-dioxole 689-98-5, Ethylamine, 2-chloro-
(sugar derivs.)

IT **109819-66-1**, Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D-
109940-67-2, Saccharamide, N,N'-bis(2-chloroethyl)-
(preparation of)
RN 109819-66-1 HCAPLUS
CN Mannosaccharamide, N,N'-bis(2-chloroethyl)-, D- (6CI) (CA INDEX NAME)

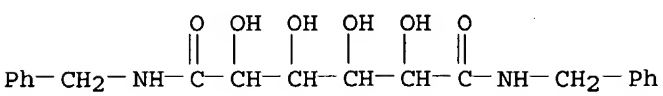
Absolute stereochemistry.



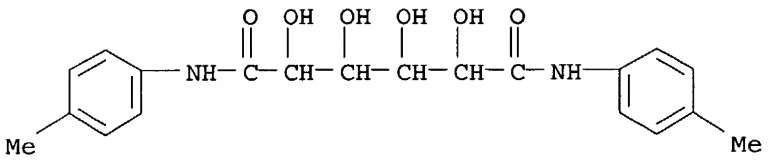
RN 109940-67-2 HCAPLUS
CN Saccharamide, N,N'-bis(2-chloroethyl)- (6CI) (CA INDEX NAME)



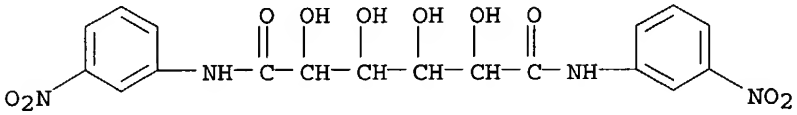
L61 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:29707 HCAPLUS
DN 51:29707
OREF 51:**5705a**
ED Entered STN: 22 Apr 2001
TI Action of active nitrogen on organic compounds. II
AU Aronovich, P. M.; Bel'skii, N. K.; Mikhailov, B. M.
SO Bulletin of the Academy of Sciences of the USSR, Division of Chemical Science (English Translation) (1956) 707-12
CODEN: BACCAT; ISSN: 0568-5230
DT Journal
LA English
CC 10 (Organic Chemistry)
AB See C.A. 51, 1893b.
IT 74-90-8, Hydrocyanic acid
(formation of, from active N and organic compds.)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **121970-51-2**, Saccharamide, N,N'-di-2-naphthyl- **121990-58-7**, Saccharamide, N,N'-di-1-naphthyl-
(preparation of)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **121970-51-2**, Saccharamide, N,N'-di-2-naphthyl- **121990-58-7**, Saccharamide, N,N'-di-1-naphthyl-
(preparation of)
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



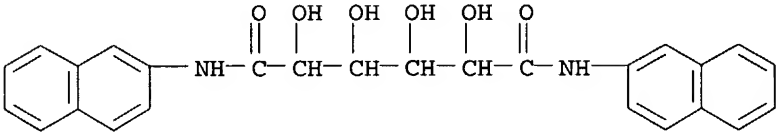
RN 113114-92-4 HCAPLUS
CN p-Saccharotoluidide (6CI) (CA INDEX NAME)



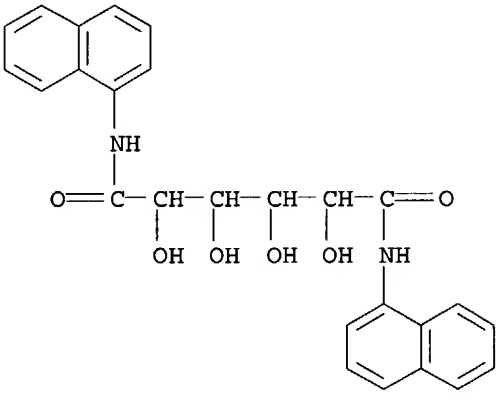
RN 114329-73-6 HCAPLUS
CN Saccharanilide, 3',3''-dinitro- (6CI) (CA INDEX NAME)



RN 121970-51-2 HCAPLUS
CN Saccharamide, N,N'-di-2-naphthyl- (6CI) (CA INDEX NAME)



RN 121990-58-7 HCAPLUS
CN Saccharamide, N,N'-di-1-naphthyl- (6CI) (CA INDEX NAME)



L61 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:29706 HCAPLUS
DN 51:29706
OREF 51:**5704d-i,5705a**
ED Entered STN: 22 Apr 2001
TI Lactone acid esters and amides of D-saccharic acid
AU Zinner, Helmut; Fischer, Wolfgang
CS Univ. Rostock, Germany
SO Chemische Berichte (1956), 89, 1503-7
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal

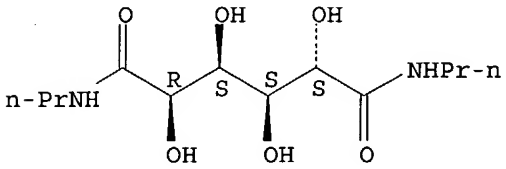
LA Unavailable
CC 10 (Organic Chemistry)
AB On esterification of saccharic acid 3,6-lactone with alcs. the lactone ring remains unchanged; the esters (I) formed are characterized by the tribenzoates and tris(p-nitrobenzoates). On treatment of I with amines the lactone ring is opened with the formation of diamides (II). Passing a solution of 20 g. K salt of D-saccharic acid through a Wofatit F (III) column, evaporating the filtrate in vacuo to a thick sirup, and keeping it several days in a desiccator over H_2SO_4 yield almost 100% D-saccharic acid 3,6-lactone (IV), m. 133-5°, [α]20D 40.7° (initial value, c 2.3, H_2O). Heating 4.8 g. IV in 60 cc. of an alc. and 70 cc. CCl_4 with 5 g. III 8 hrs. on a water bath till reduced to 2/3 volume, evaporating the filtered solution in vacuo to a sirup, and keeping it in a vacuum desiccator yield IV esters, of which the following are prepared (ester group, % yield, crystalline form, m.p., [α]21D in H_2O given): Me, 69, cubes, 156°, 20.3° (c 1.54); Et, 32, needles, 122°, 25.5° (c 0.97); Pr, 46, needles, 128°, 26.0° (c 1.88); Me_2CH (V), 56, needles, 168°, 23.2° (c 1.87); Bu, 41, needles, 111°, 25.6° (c 1.43); iso-Bu, 43, needles, 140°, 24.6° (c 1.45); iso-Am, 30, needles, 129°, 25.6° (c 1.63). Refluxing 4.8 g. IV and 5 g. choline chloride 10 hrs. in 100 cc. $CHCl_3$ and 2 drops concentrated H_2SO_4, evaporating the mixture in vacuo, and taking up the residue in 5 cc. MeOH yield 13% IV choline ester-HCl, m. 196°, [α]21D 10.9° (c 2.07, H_2O). Treating 0.47 g. V in 6 cc. C_5H_5N dropwise with 2 cc. BzCl in 4 cc. C_5H_5N 8 hrs. at 20° and pouring the mixture into H_2O yield 43% 2,4,5-tri-O-benzoyl-D-saccharic acid lactone iso-Pr ester, m. 160°, [α]22D 69° (c 2.25, C_5H_5N); Pr ester, 30%, needles, m. 117°, [α]22D 71.2° (c 2.13, C_5H_5N). Warming 0.05 mole I and 2 g. p-$O_2NC_6H_4COCl$ in 12 cc. C_5H_5N 0.5 hr. at 50°, pouring the mixture into H_2O, washing the precipitate with Et_2O, extracting it with boiling MeOH, and recrystg. give the following 2,4,5-tris-(O-p-nitrobenzoyl)-D-saccharic acid 3,6-lactone esters: Pr, 55%, fine needles, m. 190°, [α]20D 53.7° (c 1.02, all in C_5H_5N); iso-Pr, 48%, crystalline powder, 204°, 65.5° (c 2.44); Bu, 43%, crystalline powder, 200°, 60.4° (c 1.1); iso-Bu, 43%, fine needles, 191°, 63.8° (c 2.28). Treating 0.96 g. IV or 0.02 mole I in 6 cc. absolute EtOH with 1 g. $EtNH_2$ 16 hrs. at 0°, or heating 0.02 mole IV or I with 1 g. $PrNH_2$ 0.5 hr. at 50° or with 0.01 mole of an aromatic amine 15 min. at 130° gives the following D-saccharic acid diamides (% yield, crystalline form, m.p., and [α]21D in C_5H_5N given): di(ethylamide), 29, leaflets, 172.5°, 12.7° (c 1.06); di(propylamide), 14, leaflets, 172°, 10.4° (c 1.24); dianilide, 77, leaflets, 204°, 25.6° (c 2.36); di(m-toluidide), 52, clusters of crystals, 186°, 20.7° (c 1.94); di(p-toluidide), 73, leaflets, 204.5°, 25.5° (c 1.26); di(nitroanilide), 49, powder, 217.5°, 29.7° (c 1.52); di(1-naphthalide), 42, powder, 196°, 7.2° (c 1.98); di(2-naphthalide), 59, powder, 218°, 14.3° (c 0.71); di(benzylamide, 35, leaflets, 203°, 0.0° (c 1.58).
IT Ring
(cleavage of, of saccharic acid 1,4-lactone)
IT Aminolysis
(of saccharic acid 1,4-lactone, ring cleavage and)
IT Esterification
(ring cleavage and, of saccharic acid 1,4-lactone)
IT 87-73-0, Saccharic acid
(esters, lactones and other derivs.)
IT 74-90-8, Hydrocyanic acid
(formation of, from active N and organic compds.)

IT **108991-69-1**, Saccharamide, N,N'-dipropyl- 109129-13-7, Choline, chloride, ester with saccharic acid 1,4-lactone **109785-42-4**, Saccharanilide **113114-91-3**, m-Saccharotoluidide **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)

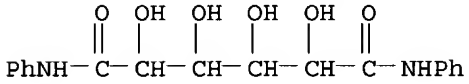
IT **108991-69-1**, Saccharamide, N,N'-dipropyl- **109785-42-4**, Saccharanilide **113114-91-3**, m-Saccharotoluidide **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)

RN 108991-69-1 HCAPLUS
CN D-Glucaramide, N,N'-dipropyl- (9CI) (CA INDEX NAME)

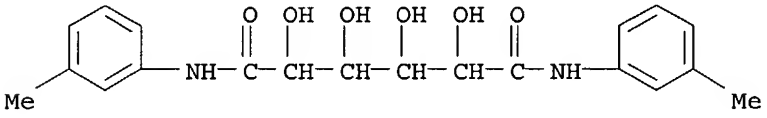
Absolute stereochemistry.



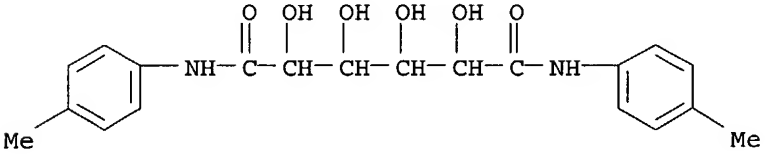
RN 109785-42-4 HCAPLUS
CN Saccharanilide (6CI) (CA INDEX NAME)



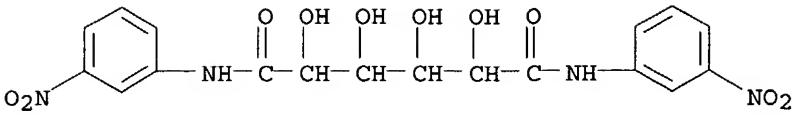
RN 113114-91-3 HCAPLUS
CN m-Saccharotoluidide (6CI) (CA INDEX NAME)



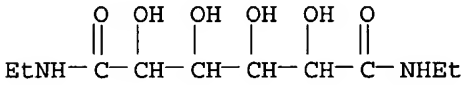
RN 113114-92-4 HCAPLUS
CN p-Saccharotoluidide (6CI) (CA INDEX NAME)



RN 114329-73-6 HCAPLUS
CN Saccharanilide, 3',3''-dinitro- (6CI) (CA INDEX NAME)



RN 119248-40-7 HCAPLUS
CN Saccharamide, N,N'-diethyl- (6CI) (CA INDEX NAME)



=> d l55 all hitstr tot

L55 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:791375 HCAPLUS
DN 139:312391
ED Entered STN: 09 Oct 2003
TI Delivery of a substance to a pre-determined site
IN Friesen, Robert Heinz Edward; Meijberg, Jan Willem; Leenhouts, Cornelis Johannes; Hektor, Harm Jan; Moll, Gert Nikolaas; Hulst, Anthony Jacques Ronald Lambert; **Van Esch, Johannes Henricus**; **Heeres, Andre**; Robillard, George Thomas
PA **Applied Nanosystems B. V., Neth.**
SO Eur. Pat. Appl., 86 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-127
ICS A61K009-107; A61K009-50; A61K047-18; A61K047-22
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1350507	A1	20031008	EP 2002-76316	20020404
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2003084508	A1	20031016	WO 2003-NL256	20030404
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ				
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PRAI EP 2002-76316	A	20020404		
US 2002-369927P	P	20020404		
US 2002-370485P	P	20020405		
EP 2002-80481	A	20021220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

EP 1350507 ICM A61K009-127
ICS A61K009-107; A61K009-50; A61K047-18; A61K047-22
EP 1350507 ECLA A61K009/107D; A61K047/22; A61K009/127B; A61K009/127B2; A61K009/50H6H; A61K047/18

OS MARPAT 139:312391

AB The invention is concerned with delivery vehicles for delivering a substance of interest to a predetd. site, said vehicle comprising said substance and a means for inducing availability of at least one compartment of said vehicle toward the exterior, thereby allowing access of said substance to the exterior of said vehicle at said predetd. site. The invention is further concerned with uses of said vehicle and methods for preparing it.

ST targeted drug delivery liposome

IT pH
(-dependent channel opening; delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(AcmA; delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(AcmD; delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PrtP; delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(channel-forming, MscL; delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(channel-forming, mechanosensitive; delivery of a substance to a pre-determined site)

IT Electric field
Human
Hydrogels
Light
Membrane, biological
PCR (polymerase chain reaction)
Panning
Particle size distribution
Radiation
Transformation, genetic
(delivery of a substance to a pre-determined site)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrophobin; delivery of a substance to a pre-determined site)

IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(light-sensitive; delivery of a substance to a pre-determined site)

IT Drug delivery systems
(liposomes; delivery of a substance to a pre-determined site)

IT Antibiotics
(pH-dependent release of; delivery of a substance to a pre-determined site)

IT Drug delivery systems
(targeted; delivery of a substance to a pre-determined site)

IT Firmicutes
(targeting of; delivery of a substance to a pre-determined site)

IT 145974-43-2, GenBank M80348 148211-74-9, GenBank L10653 152139-06-5, GenBank A04512 155744-20-0, GenBank L31364 157152-32-4, GenBank U09352 158056-50-9, GenBank U04309 170551-68-5, GenBank U38819 171151-76-1, GenBank U41109 172188-87-3, GenBank L47648 178353-13-4, GenBank Z73234 178836-41-4, GenBank X99260 179379-56-7, GenBank U64836 180770-86-9, GenBank Z79755 181614-77-7, GenBank U70858 182848-42-6, GenBank D90907

182848-50-6, GenBank D90915 184695-58-7, GenBank U81296 188288-32-6, GenBank x90511 193399-29-0, GenBank Y14079 194140-44-8, GenBank AE000654 196382-42-0, GenBank AJ001441 196570-25-9, GenBank AF017417 200045-77-8, GenBank AF027868 200244-88-8, GenBank Z99107 200244-91-3, GenBank Z99110 200244-92-4, GenBank Z99111 200244-95-7, GenBank Z99114 200244-99-1, GenBank Z99118 204904-97-2, GenBank AE000700 206804-99-1, GenBank AF058716 208207-22-1, GenBank AJ006131 209724-40-3, GenBank AE001200 209724-83-4, GenBank AE001221 209724-99-2, GenBank AE001237 211259-97-1, GenBank AE001330 212432-54-7, GenBank Z96935 220471-51-2, GenBank AF047001 221176-42-7, GenBank AF106851 223729-39-3, GenBank AE001643 223729-55-3, GenBank AE001659 223729-66-6, GenBank AE001670 225673-72-3, GenBank AF125384 225768-27-4, GenBank AE001720 225769-16-4, GenBank AE001809 227061-33-8, GenBank Y19122 384510-65-0, GenBank X69507 384609-77-2, GenBank U17696 385283-61-4, GenBank AE001348 392030-91-0, GenBank AE001137 392031-18-4, GenBank AE001164 392031-30-0, GenBank AE001176 398113-50-3, GenBank U28375
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(delivery of a substance to a pre-determined site)

IT 62-53-3, Aniline, reactions 68-12-2, Dimethylformamide, reactions 87-73-0, D-Glucaric acid 106-37-6, 1,4-Dibromobenzene 108-89-4, 4-Picoline 108-91-8, Cyclohexylamine, reactions 109-02-4, N-Methylmorpholine 109-72-8, n-Butyl lithium, reactions 124-22-1, Dodecylamine 143-28-2 576-42-1, Monopotassium D-glucarate 688-74-4 1502-03-0, Cyclododecylamine 3140-73-6 3886-69-9 15909-67-8, Diethyl galactarate 26386-88-9, Diphenylphosphorylazide 27976-27-8 39178-35-3, Isonicotinoyl chloride hydrochloride 53339-59-6, Citronellylamine 67137-56-8 69674-78-8 219537-97-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(delivery of a substance to a pre-determined site)

IT 219537-99-2P 264627-81-8P 474379-89-0P 509083-61-8P 532930-47-5P 532930-50-0P 532930-51-1P 532930-52-2P 532930-53-3P 607744-77-4P 607744-78-5P 607744-80-9P 607744-81-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(delivery of a substance to a pre-determined site)

IT 474379-90-3P 607744-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(delivery of a substance to a pre-determined site)

IT 331432-79-2P **457905-50-9P 457905-55-4P 457905-57-6P 457905-58-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(delivery of a substance to a pre-determined site)

IT 474379-87-8P 474379-94-7P 474379-95-8P 474379-96-9P 474379-97-0P 474379-98-1P 474379-99-2P 474380-00-2P 474380-01-3P 474380-02-4P 474380-05-7P 607744-79-6P 607744-83-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(delivery of a substance to a pre-determined site)

IT 609858-98-2 609858-99-3 609859-00-9 609859-01-0 609859-02-1 609859-03-2 609859-04-3 609859-05-4 609859-06-5 609859-07-6 609859-08-7 609859-09-8 609859-10-1 609859-11-2 609859-12-3 609859-13-4 609859-14-5 609859-15-6 609859-16-7 609859-17-8 609859-18-9 609859-19-0 609859-20-3 609859-21-4 609859-22-5 609859-23-6 609859-24-7 609859-25-8 609859-26-9 609859-27-0 609859-28-1 609859-29-2 609859-30-5 609859-31-6 609859-32-7 609859-33-8 609859-34-9 609859-35-0 609859-36-1 609859-37-2 609859-38-3 609859-39-4 609859-40-7 609859-41-8 609859-42-9 609859-43-0 609859-44-1 609859-45-2 609859-46-3 609859-47-4 609859-48-5 609859-49-6 609859-51-0 609859-52-1 609859-53-2 609859-54-3 609859-55-4 609859-56-5 609859-57-6 609859-58-7

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609860-34-6 609860-35-7 609860-36-8 609860-37-9 609860-38-0
609860-39-1 609860-40-4 609860-41-5 609860-42-6 609860-43-7
RL: PRP (Properties)
(unclaimed protein sequence; delivery of a substance to a pre-determined site)

IT 609859-50-9
RL: PRP (Properties)
(unclaimed sequence; delivery of a substance to a pre-determined site)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

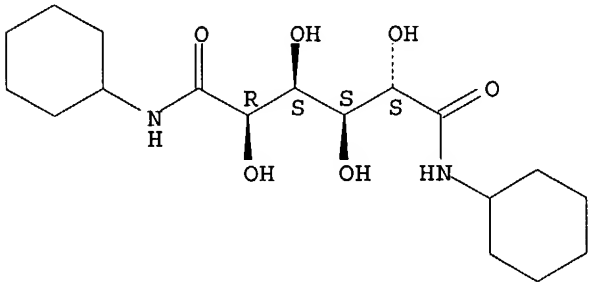
RE

(1) Anonymous; http://www.enarco.com/trucks.htm 2002
(2) Fernandez, J; US 5820879 A 1998 HCAPLUS
(3) Gutowska, A; POLYMER PREPRINTS 1996, V37(2), P115 HCAPLUS
(4) Panacea Biotec Ltd; WO 0042987 A 2000 HCAPLUS
(5) Ri Jksuniversiteit Groningen; WO 9925836 A 1999 HCAPLUS
(6) Simoes, S; PROCEEDINGS OF THE 24TH INTERNATIONAL SYMPOSIUM ON CONTROLLED RELEASE OF BIOACTIVE MATERIALS 1997, V24, P659
(7) Univ Guelph; WO 9705899 A 1997 HCAPLUS
(8) Warner Lambert Co; WO 0018377 A 2000 HCAPLUS

IT **457905-50-9P 457905-55-4P 457905-57-6P 457905-58-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(delivery of a substance to a pre-determined site)

RN 457905-50-9 HCAPLUS
CN D-Glucaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

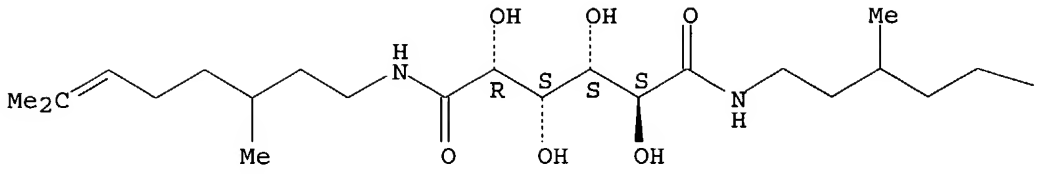
Absolute stereochemistry.



RN 457905-55-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(3,7-dimethyl-6-octenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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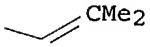
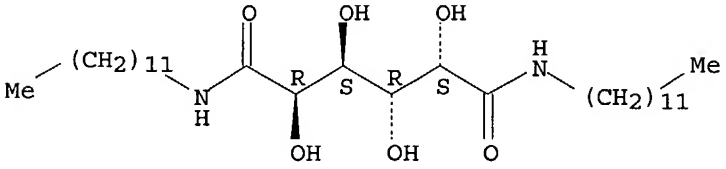


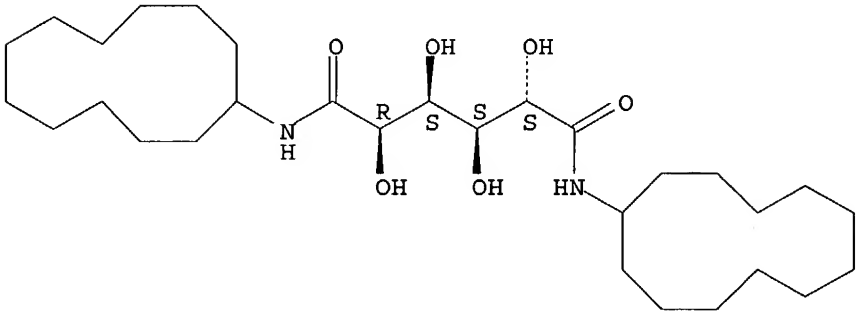
RN 457905-57-6 HCAPLUS
CN Galactaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 457905-58-7 HCAPLUS
CN D-Glucaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L55 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:695934 HCAPLUS
DN 137:232857
ED Entered STN: 13 Sep 2002
TI Preparation of N,N'-disubstituted aldaramide or pentaramide derivatives as gelling agents or thickeners
IN **Van Esch, Johannes Henricus; Heeres, Andre**
PA **Applied Nanosystems B.V., Neth.**
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07C235-06

ICS C07C235-14
CC 33-8 (Carbohydrates)
Section cross-reference(s): 17, 46, 62
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002070463	A1	20020912	WO 2002-NL151	20020306 <--
	WO 2002070463	C1	20031120		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1370517	A1	20031217	EP 2002-702972	20020306 <--
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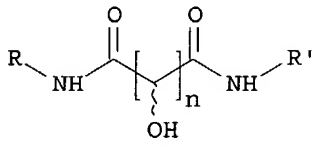
	US 2004097602	A1	20040520	US 2003-656839	20030905 <--
PRAI	EP 2001-200836	A	20010306 <--		
	WO 2002-NL151	W	20020306 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002070463	ICM	C07C235-06
	ICS	C07C235-14
US 2004097602	ECLA	A23L001/058; A61K008/02; A61K008/42; C07C235/06; C07C235/14 <--

OS MARPAT 137:232857
GI



I

AB The invention relates to novel class of gelling agents or thickeners, to a process for preparing said gelling agents or thickeners and to their use to prepare gels. The present gelling agents or thickeners have the form of a N,N'-disubstituted aldaramide or N,N'-disubstituted pentaramide derivs. I wherein n is 3 or 4; R and R' represent the same or different substituents chosen from the group of substituted or unsubstituted, branched, possibly aromatic groups containing, cyclic or linear alkyl, alkenyl, alkynyl groups having from 1 to 40-carbon atoms. The invention relates to a novel class of gelling agents, a process for producing them and to their application in preparing gels for various applications. Thermally reversible gelling or thickening of organic solvents by low mol. weight compds. are of particular interest for hardeners of spilled fluids and cooking oils, thickeners for paints, cosmetic materials and several other tech. applications. Thus, dioctylgalactaramide was prepared via condensation of di-Et galacterate with octylamine in 69% yield as gelling agent or thickener.

ST amine amidation aldaric acid monosaccharide prepn gelation thickener; pentaramide aldaramide aldaric acid prepn gelation thickener gel monosaccharide

IT Monosaccharides
RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic

preparation); PREP (Preparation)
(aldaric and pentaric acids; preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT Cosmetics
(gels; preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT Amidation
Food gels
Gelation
Gelation agents
Thickening agents
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT Amides, preparation
RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT 7440-21-3, Silicon, uses
RL: NUU (Other use, unclassified); USES (Uses)
(oil; preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT **6614-45-5P 80714-41-6P 172957-31-2P**
457905-50-9P 457905-51-0P 457905-52-1P
457905-53-2P 457905-54-3P 457905-55-4P
457905-56-5P 457905-57-6P 457905-58-7P
457905-59-8P 457905-60-1P 457905-61-2P
457905-62-3P 457905-63-4P 457905-64-5P 457905-65-6P
457905-66-7P **458557-39-6P 458557-40-9P**
458557-41-0P
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT 6614-43-3P 18618-64-9P, 8-Pentadecanamine 53339-59-6P 457905-69-0P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT 64-17-5, Ethanol, uses 67-63-0, 2-Propanol, uses 67-68-5, Dimethylsulfoxide, uses 106-42-3, p-Xylene, uses 107-06-2, 1,2-Dichloroethane, uses 108-88-3, Toluene, uses 109-86-4, 2-Methoxyethanol 110-82-7, Cyclohexane, uses 123-86-4, n-Butylacetate 123-96-6, 2-Octanol 544-76-3, Hexadecane 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

IT 60-29-7, Diethyl ether, reactions 67-64-1, Acetone, reactions 67-66-3, Chloroform, reactions 75-05-8, Acetonitrile, reactions 100-52-7, Benzaldehyde, reactions 106-23-0, Citronellal 108-91-8, Cyclohexylamine, reactions 109-73-9, Butylamine, reactions 109-99-9, Tetrahydrofuran, reactions 110-54-3, Hexane, reactions 111-82-0, Methyl laurate 111-86-4, Octylamine 112-90-3, Oleylamine 123-91-1, Dioxane, reactions 124-22-1, Dodecylamine 141-78-6, Ethylacetate,

reactions 142-82-5, Heptane, reactions 146-72-5 576-42-1 818-23-5, 8-Pentadecanone 1502-03-0, Cyclododecylamine 2782-04-9 2900-01-8 15909-67-8 22457-25-6 25567-10-6, Methylbenzoic acid 26077-65-6 457905-67-8 457905-68-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

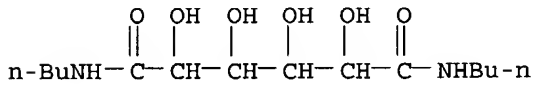
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; BULL CHEM SOC CHIM FR 1887, V2(48), P721
(2) Anon; J AMER CHEM SOC 1949, V71, P4131
(3) Anon; J CHEM SOC 1957, P805
(4) Anon; J PRAKT CHEM 1872, V2(6), P141
(5) Anon; YAKUGAKU ZASSHI 1966, V86, P1057
(6) Chen, L; ACS SYMP SER, COMPUT MODEL CARBOHYDR MOL 1990, V430, P141 HCAPLUS
(7) Geigy Ag J R; GB 781255 A 1957 HCAPLUS
(8) Hoagland, P; CARBOHYDRATE RES 1981, V98, P203 HCAPLUS
(9) Kiely, D; US 5478374 A 1995 HCAPLUS
(10) Kurtz, A; J BIOL CHEM 1939, P693 HCAPLUS
(11) Rehse, K; ARCH PHARM 1987, V320(11), P1155 HCAPLUS
(12) Sebag, H; US 5112601 A 1992 HCAPLUS
(13) Tabern, D; US 2084626 A 1937 HCAPLUS

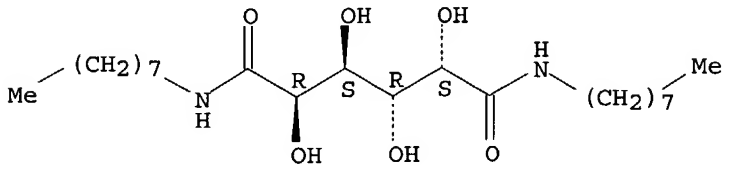
IT **6614-45-5P 80714-41-6P 172957-31-2P 457905-50-9P 457905-51-0P 457905-52-1P 457905-53-2P 457905-54-3P 457905-55-4P 457905-56-5P 457905-57-6P 457905-58-7P 457905-59-8P 457905-60-1P 457905-61-2P 457905-62-3P 458557-39-6P 458557-40-9P 458557-41-0P**
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)

RN 6614-45-5 HCAPLUS
CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



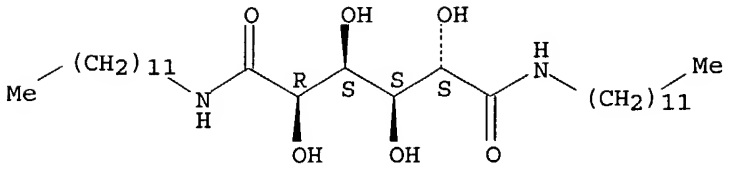
RN 80714-41-6 HCAPLUS
CN Galactaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



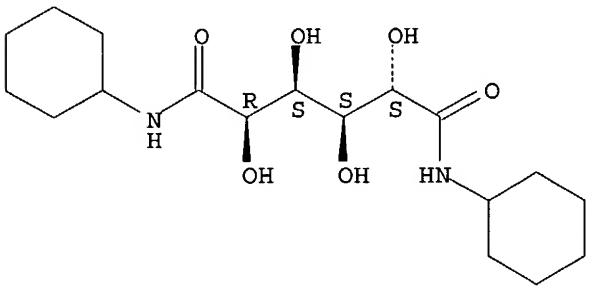
RN 172957-31-2 HCAPLUS
CN D-Glucaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



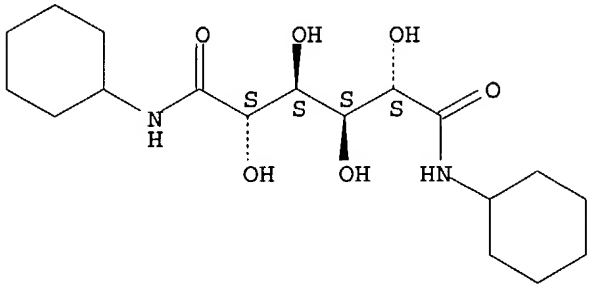
RN 457905-50-9 HCAPLUS
CN D-Glucaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



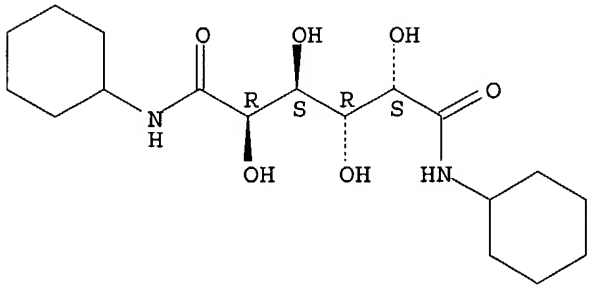
RN 457905-51-0 HCAPLUS
CN D-Mannaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



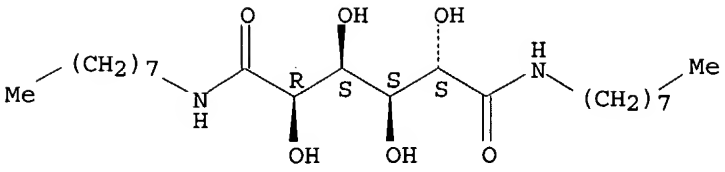
RN 457905-52-1 HCAPLUS
CN Galactaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



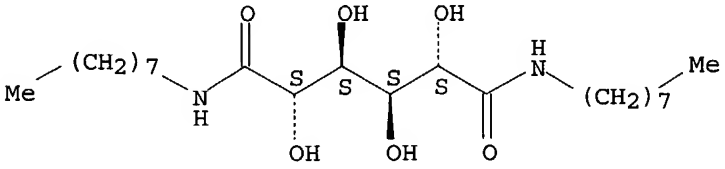
RN 457905-53-2 HCAPLUS
CN D-Glucaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 457905-54-3 HCAPLUS
CN D-Mannaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

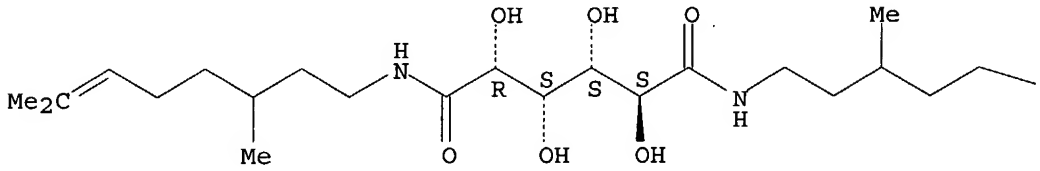
Absolute stereochemistry.



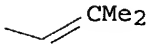
RN 457905-55-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(3,7-dimethyl-6-octenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

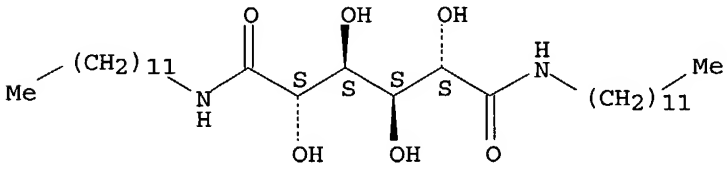


PAGE 1-B



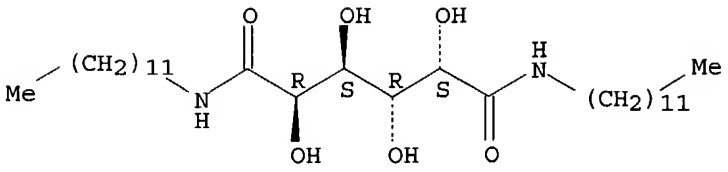
RN 457905-56-5 HCAPLUS
CN D-Mannaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



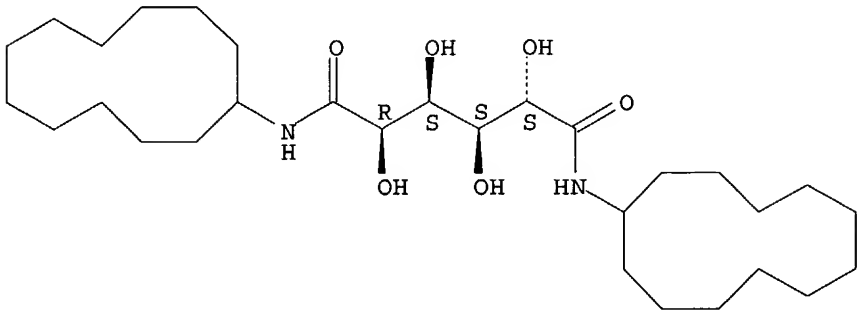
RN 457905-57-6 HCAPLUS
CN Galactaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



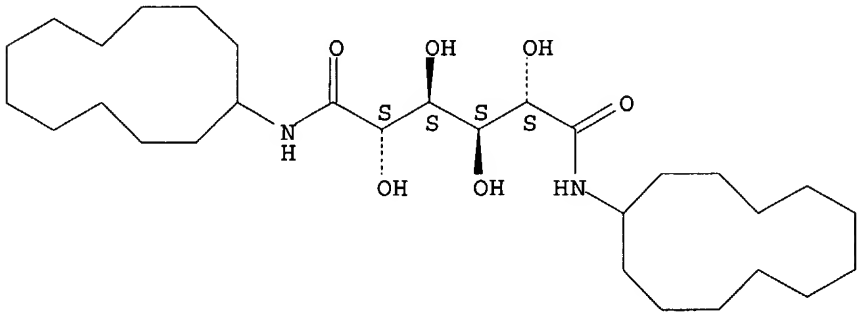
RN 457905-58-7 HCAPLUS
CN D-Glucaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



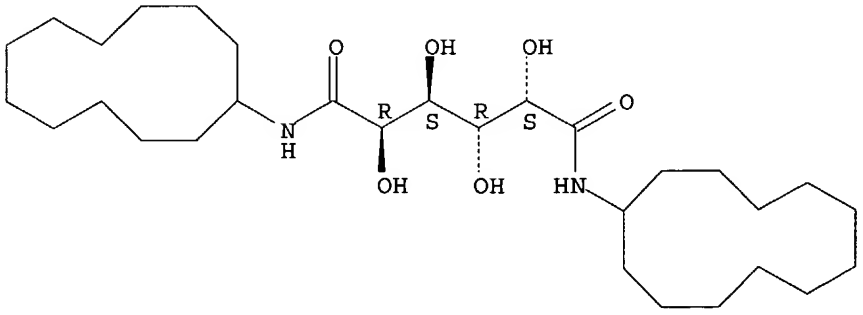
RN 457905-59-8 HCAPLUS
CN D-Mannaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



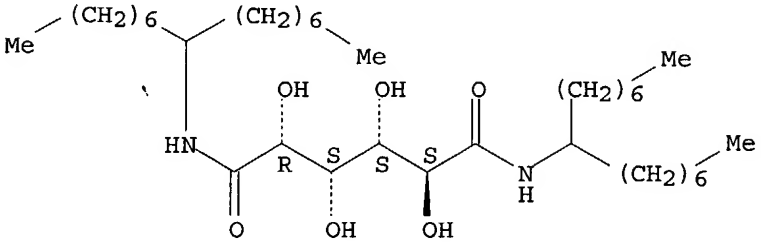
RN 457905-60-1 HCAPLUS
CN Galactaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 457905-61-2 HCAPLUS
CN D-Glucaramide, N,N'-bis(1-heptyloctyl)- (9CI) (CA INDEX NAME)

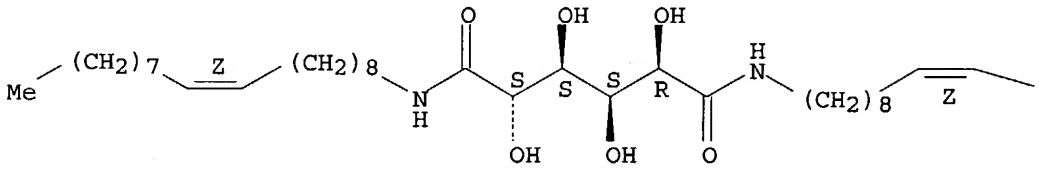
Absolute stereochemistry.



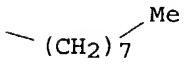
RN 457905-62-3 HCAPLUS
CN D-Glucaramide, N,N'-di-(9Z)-9-octadecenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

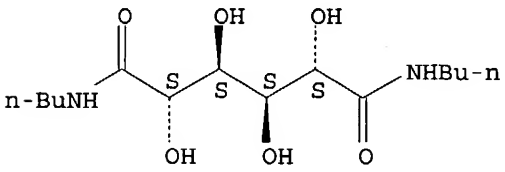


PAGE 1-B



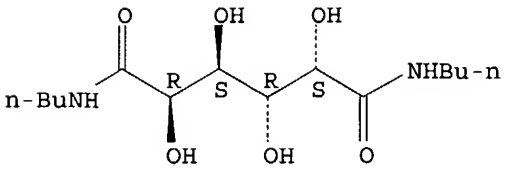
RN 458557-39-6 HCAPLUS
CN D-Mannaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

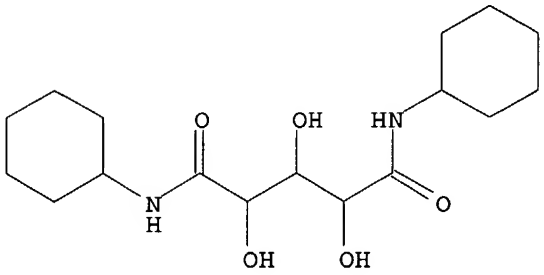


RN 458557-40-9 HCAPLUS
CN Galactaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 458557-41-0 HCAPLUS
CN Ribaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)



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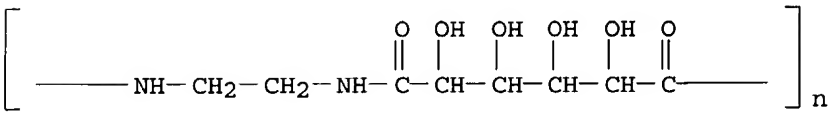
L63 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:205634 HCAPLUS
DN 135:5941
ED Entered STN: 22 Mar 2001
TI Synthesis and characterization of stereoregular AABB-type polymannaramides
AU Orgueira, Hernan A.; Varela, Oscar
CS Departamento de Quimica Organica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Buenos Aires, 1428, Argent.
SO Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(7), 1024-1030
CODEN: JPACEC; ISSN: 0887-624X
PB John Wiley & Sons, Inc.
DT Journal
LA English
CC 35-7 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 33, 36
AB The condensation of D-mannaro-1,4:6,3-dilactone
alkylene diamines (C2, C6-C12) in a methanol so ce of
triethylamine afforded polymannaramides 3-7, wh ly
as white solids with various hydrophobic-hydrophilic characters. Because all the stereo centers in 2 possessed an S configuration, the random polymerization led to optically active, stereoregular polyhydroxy polyamides. The polymers were characterized by elemental anal. and IR, 1H NMR, and 13C NMR spectroscopy. Their number-average mol. wts. were estimated by 1H NMR spectral integration anal. Thermal and powder X-ray diffraction studies revealed that compds. 3-7 were poorly crystalline
ST mannaric acid alkylene diamine polymannaramide prepn stereoregular thermal degrdn
IT Polymer chains
(length; synthesis and characterization of stereoregular AABB-type polymannaramides)
IT Solubility
(organic solvents; synthesis and characterization of stereoregular

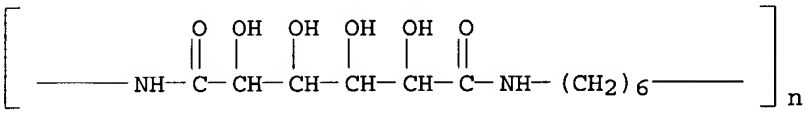
Other authors (includes polymers)

AABB-type polymannaramides)
IT Optical activity
Polymer morphology
(synthesis and characterization of stereoregular AABB-type polymannaramides)
IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of stereoregular AABB-type polymannaramides)
IT Polymer degradation
(thermal; synthesis and characterization of stereoregular AABB-type polymannaramides)
IT 121-44-8, Triethylamine, uses
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst, ring-opening; synthesis and characterization of stereoregular AABB-type polymannaramides)
IT 151968-80-8P 152159-67-6P **261636-14-0P 261636-16-2P**
340755-54-6P 340755-55-7P 340755-56-8P **340821-67-2P**
340821-68-3P 340821-70-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of stereoregular AABB-type polymannaramides)
IT 3458-28-4, D-Mannose
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and characterization of stereoregular AABB-type polymannaramides)
IT 2900-01-8P, D-Mannaro-1,4:6,3-dilactone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and characterization of stereoregular AABB-type polymannaramides)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bueno, M; J Polym Sci Part A: Polym Chem 1997, V35, P3645 HCAPLUS
(2) Carter, A; J Polym Sci Part A: Polym Chem 2000, V38, P3892 HCAPLUS
(3) Cheng, L; J Org Chem 1996, V61, P5847
(4) Cullity, B; Elements of X-Ray Diffraction 1978, P102
(5) Hashimoto, K; J Polym Sci Part A: Polym Chem 1993, V31, P3141 HCAPLUS
(6) Haworth, W; J Chem Soc 1944, P217 HCAPLUS
(7) Kiely, D; US 5434233 1995 HCAPLUS
(8) Kiely, D; J Am Chem Soc 1994, V116, P571 HCAPLUS
(9) Kiely, D; J Polym Sci Part A: Polym Chem 2000, V38, P594 HCAPLUS
(10) Morton, D; J Polym Sci Part A: Polym Chem 2000, V38, P604 HCAPLUS
(11) Ogata, N; J Polym Sci Polym Chem Ed 1976, V14, P783 HCAPLUS
(12) Ogata, N; J Polym Sci Polym Chem Ed 1977, V15, P1523 HCAPLUS
(13) Ogata, N; J Polym Sci Polym Chem Ed 1980, V18, P933 HCAPLUS
(14) Ogata, N; Polym J 1979, V11, P827 HCAPLUS
(15) Orgueira, H; Abstracts of Papers, XVIII International Carbohydrate Symposium 1996, P288
(16) Orgueira, H; J Polym Sci Part A: Polym Chem 1998, V36, P2741 HCAPLUS
(17) Orgueira, H; PhD Dissertation, University of Buenos Aires 1998
(18) Orgueira, H; Tetrahedron: Asymmetry 1997, V8, P1383 HCAPLUS
(19) Packen, H; The Carbohydrates, Chemistry and Biochemistry, 2nd ed 1980, VIB, P911
(20) Sweeny, W; Encyclopedia of Polymer Science and Technology 1969, V10, P544
(21) Thiem, J; Trends Polym Sci 1994, V2, P425 HCAPLUS
(22) Varela, O; Adv Carbohydr Chem Biochem 1999, V55, P135
IT **261636-14-0P 261636-16-2P 340821-67-2P**
340821-68-3P 340821-70-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of stereoregular AABB-type polymannaramides)
RN 261636-14-0 HCAPLUS

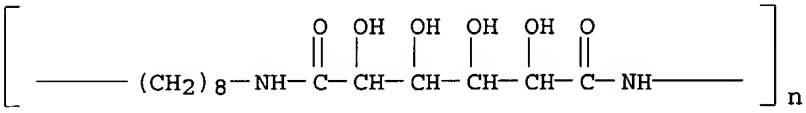
CN Poly(imino-1,2-ethanediylimino-D-mannaroyl) (9CI) (CA INDEX NAME)



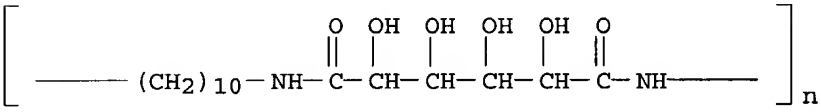
RN 261636-16-2 HCAPLUS
CN Poly(imino-D-mannaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



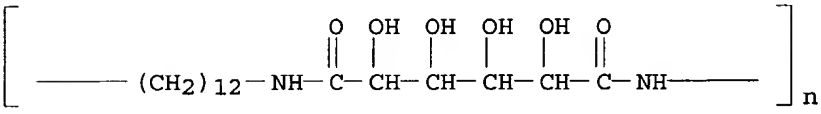
RN 340821-67-2 HCAPLUS
CN Poly[imino-D-mannaroylimino-1,8-octanediyl] (9CI) (CA INDEX NAME)



RN 340821-68-3 HCAPLUS
CN Poly(imino-D-mannaroylimino-1,10-decanediyl) (9CI) (CA INDEX NAME)



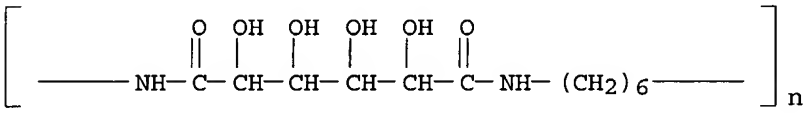
RN 340821-70-7 HCAPLUS
CN Poly[imino-D-mannaroylimino-1,12-dodecanediyl] (9CI) (CA INDEX NAME)



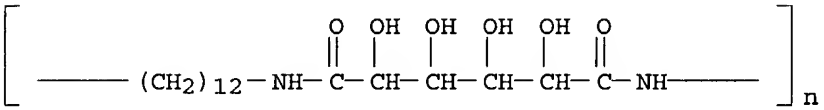
L63 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:578329 HCAPLUS
DN 133:297213
ED Entered STN: 23 Aug 2000
TI Evaluation of the film and adhesive properties of some block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines
AU Morton, David W.; Kiely, Donald E.
CS Department of Chemistry, The University of Alabama at Birmingham, Birmingham, AL, 35294, USA
SO Journal of Applied Polymer Science (**2000**), 77(14), 3085-3092
CODEN: JAPNAB; ISSN: 0021-8995
PB John Wiley & Sons, Inc.
DT Journal

LA English
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 33, 37
AB A number of structurally different block copolymer polyhydroxypolyamides (PHPAs), produced by condensation polymerization of activated aldarates with 1° diamines, were evaluated for their water and methanol solubility and film-forming and adhesive properties. The polymers are composed of a single aldaric acid and a single diamine unit, a single aldaric acid and two diamine units, two aldaric acids and a single diamine unit, or two aldaric acids and two diamine units. The aldaryl monomer units in the polymers were derived from D-glucaric, xylaric, and galactaric (mucic) acids. A number of alkylene diamines and heteroatom (oxygen and nitrogen)-containing diamines were employed as comonomers.
ST block copolymer film adhesive property; polyhydroxypolyamide film adhesive property
IT Adhesion, physical
Adhesives
Opaque materials
Transparent films
(evaluation of film and adhesive properties of block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines)
IT Adhesives
(hot-melt; evaluation of film and adhesive properties of block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines)
IT Polyamides, properties
RL: PRP (Properties)
(hydroxy-; evaluation of film and adhesive properties of block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines)
IT **59268-69-8**, Poly(iminogalactaroylimino-1,6-hexanediyl)
124020-37-7 124094-87-7 152067-43-1 152174-01-1 152174-04-4
152195-72-7 152195-74-9 152195-75-0 261527-92-8 261527-94-0
261527-97-3 261621-23-2 261623-87-4 261623-91-0 **261634-73-5**
300733-71-5 300733-72-6 300733-73-7 300733-74-8 300733-75-9
300733-76-0 300733-77-1 300733-78-2 300733-79-3 300733-80-6
300823-89-6 300823-90-9 300823-91-0 300823-92-1 300823-93-2
300823-94-3 300823-95-4 300823-96-5 300823-97-6 300823-98-7
300823-99-8 300824-00-4 300824-01-5 300824-02-6 300824-03-7
300824-04-8 300824-05-9 301166-03-0
RL: PRP (Properties)
(evaluation of film and adhesive properties of block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines)
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; Annual Book of ASTM Standards 1999, V15.06, P267
(2) Anon; Annual Book of ASTM Standards 1999, V06.01, P355
(3) Anon; Annual Book of ASTM Standards 1999, V06.01, P77
(4) Chen, L; ACS Symposium Series 1990, V430, P141 HCAPLUS
(5) Chen, L; PhD Dissertation, The University of Alabama at Birmingahm 1992
(6) Chen, L; Polym Prepr 1993, V34, P550 HCAPLUS
(7) Christiansen, A; J Forest Prod 1986, V36, P20 HCAPLUS
(8) Clark, R; J Forest Prod 1988, V38, P71 HCAPLUS
(9) Conner, A; Adhesives from Renewable Resources 1989, P1
(10) Helm, R; Carbohydr Res 1989, V189, P103 HCAPLUS
(11) Jeffery, G; Carbohydr Res 1982, V108, P205
(12) Jones, M; Adhesive Chemistry, Developments and Trends 1984, P693 HCAPLUS
(13) Kiely, D; US 4833230 1989 HCAPLUS
(14) Kiely, D; US 5312967 1994 HCAPLUS
(15) Kiely, D; US 5434233 1995 HCAPLUS
(16) Kiely, D; ACS Symposium Series 1994, V575, P149 HCAPLUS
(17) Kiely, D; J Am Chem Soc 1994, V116, P571 HCAPLUS
(18) Lin, T; PhD Dissertation, The University of Alabama at Bimingham 1987

(19) Pocicus, A; Encyclopedia of Chemical Technology 1991, V1, P445
(20) Taga, T; Bull Chem Soc Jpn 1977, V50, P3079 HCAPLUS
IT **59268-69-8**, Poly(iminogalactaroylimino-1,6-hexanediyl)
261634-73-5
RL: PRP (Properties)
(evaluation of film and adhesive properties of block copolymer polyhydroxypolyamides from esterified aldaric acids and diamines)
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



RN 261634-73-5 HCAPLUS
CN Poly(iminogalactaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)

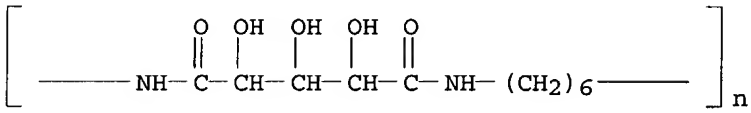


L63 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:69589 HCAPLUS
DN 132:222967
ED Entered STN: 30 Jan 2000
TI Synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acids and alkylenediamine monomers-some comparisons
AU Kiely, Donald E.; Chen, Liang; Lin, Tsu-Hsing
CS Shafizadeh Rocky Mountain Center for Wood and Carbohydrate Chemistry, University of Montana, Missoula, MT, 59812, USA
SO Journal of Polymer Science, Part A: Polymer Chemistry (**2000**), 38(3), 594-603
CODEN: JPACEC; ISSN: 0887-624X
PB John Wiley & Sons, Inc.
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
AB The condensation polymerization in a methanol solution of four different esterified aldaric acids (D-glucaric, meso-xylaric, meso-galactaric, and D-mannaric) with even-numbered alkylenediamines (C2-C12) gave polyhydroxypolyamides whose water solubilities and m.ps. were compared. In general, an increase in the alkylenediamine monomer length resulted in decreased polyamide water solubility Differences in the polymer m.ps. and water solubilities were linked primarily to conformational differences of the monomer aldaryl units; for example, polyamides from meso-galactaric acid with an extended zigzag conformation aldaryl monomer unit had higher m.ps. and lower water solubilities than those from D-glucaric and meso-xylaric acids. The latter acid monomer units tended toward bent conformations that served to diminish intermol. attractive forces between polymer chains, affecting polymer solubility and melting characteristics.
ST hydroxy polyamide prepn galactaric xylaric glucaric mannaric acid
IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydroxy; synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)

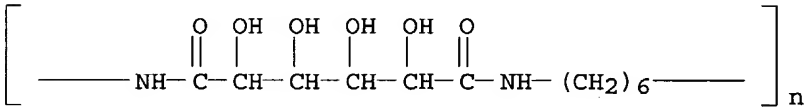
IT Solubility
(synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
IT 3458-28-4, D-Mannose
RL: RCT (Reactant); RACT (Reactant or reagent)
(in monomer preparation; synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
IT 2900-01-8P, D-Mannaro-1,4:6,3-dilactone 24808-45-5P, Dimethyl galactarate 123960-96-3P 124151-83-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
IT **32038-06-5P**, Poly(iminoxylaroylimino-1,6-hexanediyl)
59268-69-8P 59268-70-1P 124020-37-7P 124094-88-8P
151968-79-5P 151968-80-8P 152067-43-1P 152159-67-6P 152174-01-1P
152174-02-2P 152174-06-6P 152174-07-7P 152195-72-7P 261621-21-0P
261621-22-1P 261621-23-2P 261621-24-3P 261621-25-4P 261621-26-5P
261621-27-6P 261621-28-7P 261621-29-8P 261621-30-1P
261621-31-2P 261621-32-3P 261621-33-4P,
Poly(imino-1,2-ethanediyliminoxylaroyl) **261621-36-7P**,
Poly(iminoxylaroylimino-1,10-decanediyl) **261634-72-4P**
261634-73-5P 261634-93-9P, Poly(imino-1,4-butanediyliminoglucaroyl) **261635-32-9P 261635-80-7P**
261636-06-0P 261636-11-7P 261636-12-8P,
Poly(iminoxylaroylimino-1,8-octanediyl) **261636-13-9P**
261636-14-0P 261636-15-1P, Poly(imino-1,4-butanediyliminomannaroyl) **261636-16-2P 261636-67-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
IT **261621-34-5P**, Poly(imino-1,4-butanediyliminoxylaroyl)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(xylaramide; synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Chen, L; Computer Modeling of Carbohydrate Molecules, ACS Symposium Series 430 1990, P141 HCAPLUS
(2) Chen, L; J Org Chem 1996, V61, P5847 HCAPLUS
(3) Chen, L; PhD Dissertation, University of Alabama at Birmingham 1992
(4) Chen, L; Polym Prepr 1993, V34, P550 HCAPLUS
(5) Hashimoto, K; J Polym Sci Polym Chem Ed 1993, V31, P3141 HCAPLUS
(6) Hashimoto, K; Makromol Chem Rapid Comm 1990, V11, P393 HCAPLUS
(7) Haworth, W; J Chem Soc 1944, P217 HCAPLUS
(8) Hoagland, P; Carbohydr Res 1981, V98, P203 HCAPLUS
(9) Hoagland, P; J Carbohydr Chem 1987, V6, P495 HCAPLUS
(10) Jeffrey, G; Carbohydr Res 1982, V108, P205 HCAPLUS
(11) Kiely, D; US 4833230 1989 HCAPLUS
(12) Kiely, D; J Am Chem Soc 1994, V116, P571 HCAPLUS
(13) Lewis, B; Methods in Carbohydrate Chemistry 1963, V2, P38 HCAPLUS
(14) Lin, T; PhD Dissertation, University of Alabama at Birmingham 1987
(15) Navia, J; J Carbohydr Chem 1986, V5, P169 HCAPLUS
(16) Ogata, N; J Polym Sci Polym Chem Ed 1973, V11, P1095 HCAPLUS
(17) Ogata, N; J Polym Sci Polym Chem Ed 1973, V11, P2537 HCAPLUS
(18) Ogata, N; J Polym Sci Polym Chem Ed 1975, V13, P1793 HCAPLUS
(19) Ogata, N; J Polym Sci Polym Chem Ed 1976, V14, P783 HCAPLUS
(20) Ogata, N; J Polym Sci Polym Chem Ed 1977, V15, P1523 HCAPLUS
(21) Ogata, N; J Polym Sci Polym Chem Ed 1980, V18, P939 HCAPLUS
(22) Ogata, N; J Polym Sci Polym Lett Ed 1974, V12, P355 HCAPLUS
(23) Ogata, N; Polym Prepr 1976, V17, P151 HCAPLUS
(24) Taga, T; Bull Chem Soc Jpn 1977, V50, P3079 HCAPLUS
IT **32038-06-5P**, Poly(iminoxylaroylimino-1,6-hexanediyl)

59268-69-8P 59268-70-1P 261621-31-2P
261621-32-3P 261621-33-4P, Poly(imino-1,2-ethanediyliminoxylaroyl) **261621-36-7P**, Poly(iminoxylaroylimino-1,10-decanediyl) **261634-72-4P 261634-73-5P**
261634-93-9P, Poly(imino-1,4-butanediyliminoglucaroyl)
261635-32-9P 261635-80-7P 261636-06-0P
261636-11-7P 261636-12-8P, Poly(iminoxylaroylimino-1,8-octanediyl) **261636-13-9P 261636-14-0P**
261636-15-1P, Poly(imino-1,4-butanediyliminomannaroyl)
261636-16-2P 261636-67-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)

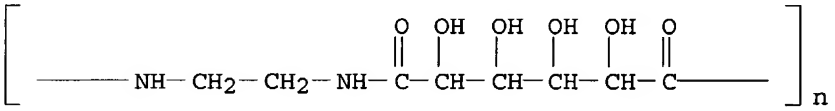
RN 32038-06-5 HCAPLUS
CN Poly(iminoxylaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



RN 59268-70-1 HCAPLUS
CN Poly(imino-1,2-ethanediyliminogalactaroyl), rel- (9CI) (CA INDEX NAME)



RN 261621-31-2 HCAPLUS
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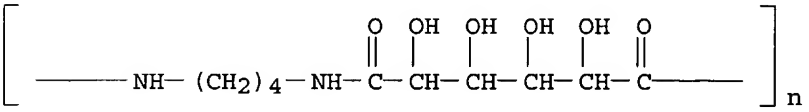
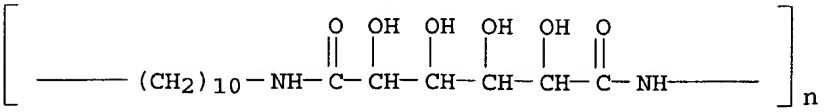
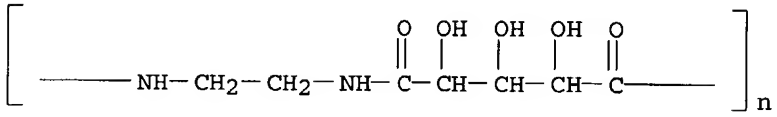


RN 261621-32-3 HCAPLUS
CN Poly(iminogalactaroylimino-1,10-decanediyl) (9CI) (CA INDEX NAME)



RN 261621-33-4 HCAPLUS
CN Poly(imino-1,2-ethanediyliminoxylaroyl) (9CI) (CA INDEX NAME)



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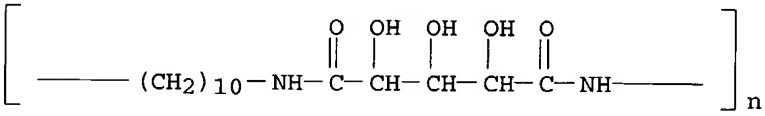
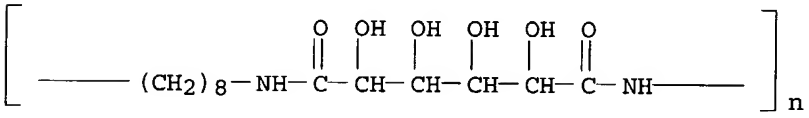
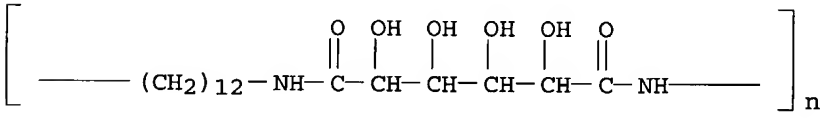
CN Poly(iminoxylaroylimino-1,10-decanediyl) (9CI) (CA INDEX NAME)



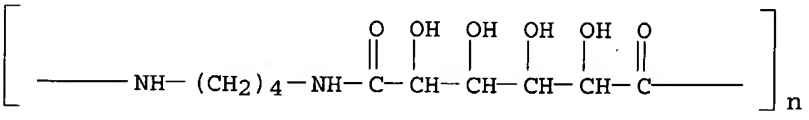
RN 261634-72-4 HCAPLUS
CN Poly(iminogalactaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



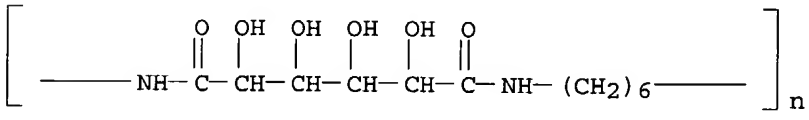
RN 261634-73-5 HCAPLUS
CN Poly(iminogalactaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



RN 261634-93-9 HCAPLUS
CN Poly(imino-1,4-butanediylimino-(2ξ,5ξ)-D-threo-hexaroyl) (9CI) (CA INDEX NAME)

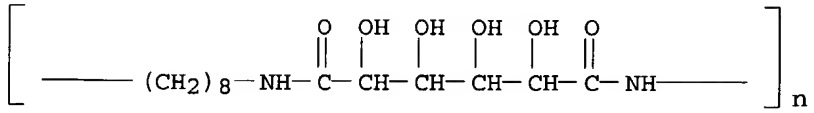


RN 261635-32-9 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)

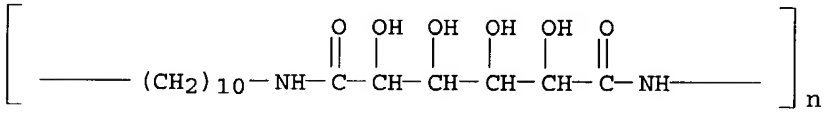


RN 261635-80-7 HCAPLUS

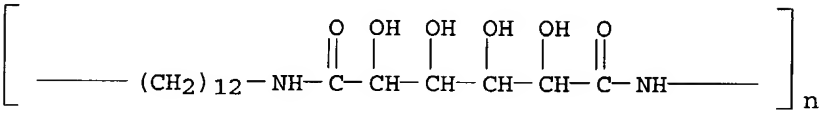
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



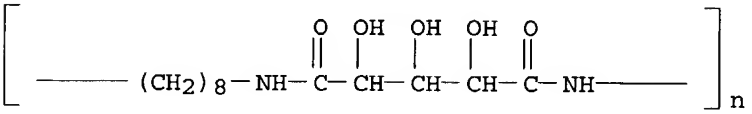
RN 261636-06-0 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,10-decanediyl) (9CI) (CA INDEX NAME)



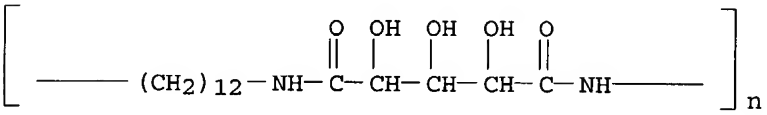
RN 261636-11-7 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



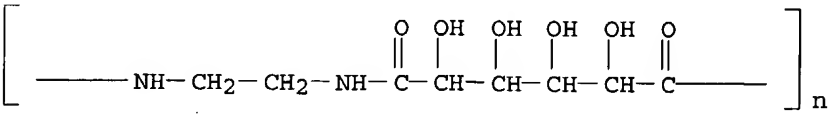
RN 261636-12-8 HCAPLUS
CN Poly(iminoxylaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



RN 261636-13-9 HCAPLUS
CN Poly(iminoxylaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)

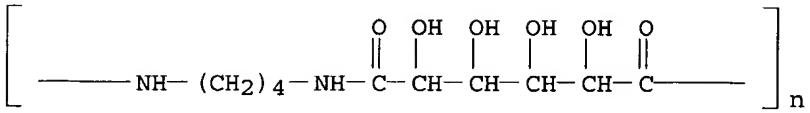


RN 261636-14-0 HCAPLUS
CN Poly(imino-1,2-ethanediylimino-D-mannaroyl) (9CI) (CA INDEX NAME)

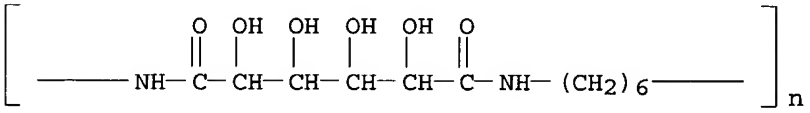


RN 261636-15-1 HCAPLUS

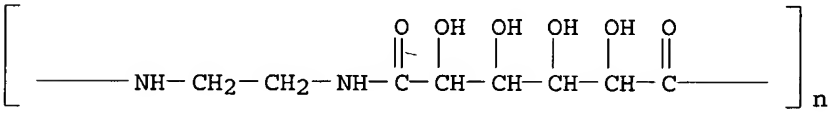
CN Poly(imino-1,4-butanediyliminomannaroyl) (9CI) (CA INDEX NAME)



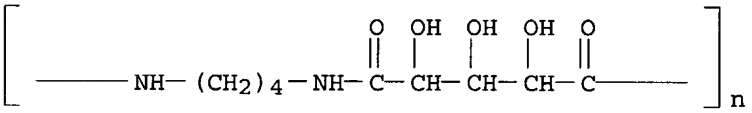
RN 261636-16-2 HCAPLUS
CN Poly(imino-D-mannaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



RN 261636-67-3 HCAPLUS
CN Poly(imino-1,2-ethanediylimino-(2ξ,5ξ)-D-threo-hexaroyl) (9CI) (CA INDEX NAME)



IT **261621-34-5P**, Poly(imino-1,4-butanediyliminoxylaroyl)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(xylaramide; synthetic polyhydroxypolyamides from galactaric, xylaric, D-glucaric, and D-mannaric acid derivs. and alkylenediamines)
RN 261621-34-5 HCAPLUS
CN Poly(imino-1,4-butanediyliminoxylaroyl) (9CI) (CA INDEX NAME)



L63 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:261683 HCAPLUS
DN 131:55769
ED Entered STN: 29 Apr 1999
TI Synthesis and characterization of model compounds of the active site of the enzyme superoxide dismutase
AU Morales, Jose Luis Garate; Vergara, Enrique Gonzalez
CS Centro de Quimica Instituto de Ciencias. BUAP, Puebla de Zaragoza, Mex.
SO Congreso Iberoamericano de Quimica Inorganica, 6th, Puebla, Mex., Apr. 20-25, 1997 (**1997**), 47-50 Publisher: Asociacion Mexicana de Quimica Inorganica, Guanajuato, Mex.
CODEN: 67NIAA
DT Conference
LA Spanish
CC 7-5 (Enzymes)
Section cross-reference(s): 29
AB Five Cu(II) complexes with bi-, tri- or tetradentate ligands containing imidazole N as donor atom were synthesized for spectrophotometric modeling

of the active site of superoxide dismutase. Characterization of these complex by UV and IR spectroscopy indicated that they displayed some characteristics of the enzyme. The Cu(II)-PEDTA20 complex reproduced the visible spectrum of superoxide dismutase. However, the EPR data corresponded better to the characteristics of other Cu(II) enzymes, so the initial objective was modified to spectroscopic modeling of other Cu metalloproteins.

ST metalloprotein active site model copper complex imidazole ligand; superoxide dismutase active site model copper complex

IT Enzyme functional sites
(active; synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

IT Proteins, specific or class
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(metalloproteins, Cu(II)-containing, modeling of; synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

IT Simulation and Modeling, physicochemical
(synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

IT 227753-84-6DP, complex with Cu(II) **227753-85-7DP**, complex with Cu(II) 227753-86-8DP, complex with Cu(II) 227753-87-9DP, complex with Cu(II) 227753-88-0DP, complex with Cu(II)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

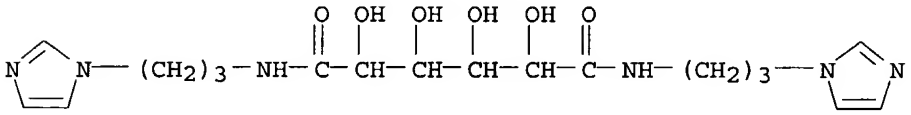
RE

(1) Hassan, H; Free Radicals in Molecular Biology Aging and Disease 1984, P77
(2) Hermanson, T; "Immobilized affinity ligand techniques Cap 2 1992
(3) Inoue, M; Methods in Enzymology 1994, V233, P212 HCAPLUS
(4) Kitajama, N; Advances in Inorganic Chemistry 1992, V39

IT **227753-85-7DP**, complex with Cu(II)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of model compds. of active site of enzyme superoxide dismutase)

RN 227753-85-7 HCAPLUS

CN Hexaramide, N,N'-bis[3-(1H-imidazol-1-yl)propyl]- (9CI) (CA INDEX NAME)



L63 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:69419 HCAPLUS

DN 126:89702

ED Entered STN: 31 Jan 1997

TI Preparation of sulfate esters of aminosugar derivatives for the inhibition of the migration and proliferation of vascular smooth muscle cells.

IN Chucholowski, Alexander; Pech, Michael; Fingerle, Juergen; Rouge, Marianne; Iberg, Niggi; Schmid, Gerard; Maerki, Hans Peter; Tschopp, Thomas; Mueller, Rita; Wessel, Hans Peter

PA F. Hoffmann-La Roche Ag, Switz.

SO Eur. Pat. Appl., 59 pp.
CODEN: EPXXDW

DT Patent
LA German
IC ICM C07C305-06
ICS C07H015-18; A61K031-255; A61K031-70
CC 33-7 (Carbohydrates)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 741128	A2	19961106	EP 1996-106471	19960424 <--
	EP 741128	A3	19970326		
	EP 741128	B1	20010620		
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	JP 2881752	B2	19990412		
	AT 202339	E	20010715	AT 1996-106471	19960424 <--
	ES 2160190	T3	20011101	ES 1996-106471	19960424 <--
	PT 741128	T	20011130	PT 1996-106471	19960424 <--
	US 5830920	A	19981103	US 1996-639986	19960426 <--
	CN 1150589	A	19970528	CN 1996-100231	19960430 <--
	GR 3036660	T3	20011231	GR 2001-401520	20010918 <--
PRAI	CH 1995-1310	A	19950505 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 741128	ICM	C07C305-06
	ICS	C07H015-18; A61K031-255; A61K031-70
US 5830920	ECLA	C07C305/06; C07C305/10; C07H015/18D <--

AB (A1X1)m1(Y1X2)n1(Q1X3)m2(Y2X4)n2(Z1X5)m3(Y3X6)n3D(Y6X12)n6(Z2X11)m6(Y5X10)n5(Q2X9)m5(Y4X8)n4(A2X7)m4, (A1X1)m1(Y1X2)n1(Q1X3)m2(Y2X4)n2(Z1X5)m3(Y3X6)n3W[(Y9X18)n9(Z3X17)m9(Y8X16)n8(Q3X15)m8(Y7X14)n7(A3X13)m7][(Y6X12)n6(Z2X11)m6(Y5X10)n5(Q2X9)m5(Y4X8)n4(A2X7)m4] n1-n9, m1-m9 = 0, 1; X1-X18 = O, CONR1, NR1; [R1 = H, alkyl; W = Ph or s-triazine residue; A1-A3 = sugar or sugar acid residue, tris(hydroxymethyl)methyl residue; Y1-Y9 = aromatic ring systems; D = divalent sugar or sugar acid residue; Q1-Q3, Z1-Z3 = D, didesoxyglucopyranoside residue; ≥1 of A1-A3, D, Q1-Q3, Z1-Z3 is sulfated], were prepared Thus, 2,3:4,5-di-O-isopropylidene-1,6-bis-O-(4-methylphenylsulfonyl)galactitol, Me (E)-3-(4-hydroxyphenyl)acrylate, and K2CO3 were stirred 18 h at 130° to give 2,3:4,5-di-O-isopropylidene-1,6-bis-O-[(E)-4-(2-methoxycarbonylvinyl)phenyl]galactitol, which was converted to 1,6-bis-O-[4-[2-(2,3,4,5,6-penta-O-sulfo-D-glucit-1-ylcarbamoyl)ethyl]phenyl]-2,3,4,5-tetra-O-sulfogalactitol tetradecylsodium salt. The latter at 3 mg/kg/h i.v. in rats with damaged left carotids gave 47% inhibition of tissue proliferation.

ST aminosugar sulfate ester cell proliferation inhibitor; smooth muscle proliferation inhibitor aminosugar sulfate

IT Carbohydrates, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino sugars; preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT Cell proliferation
(migration and proliferation inhibitors; preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT Antiarteriosclerotics
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT Muscle
(smooth, migration and proliferation inhibitors; preparation of sulfate

esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT 185511-02-8P 185511-03-9P 185511-04-0P 185511-07-3P 185511-08-4P
185511-09-5P 185511-10-8P 185511-11-9P 185511-12-0P 185511-13-1P
185511-14-2P 185511-15-3P 185511-16-4P 185511-17-5P 185511-18-6P
185511-19-7P 185511-20-0P 185511-21-1P 185511-22-2P 185511-23-3P
185511-25-5P 185511-27-7P 185511-28-8P 185511-29-9P 185511-30-2P
185511-31-3P 185511-32-4P 185511-33-5P 185511-34-6P 185511-35-7P
185511-36-8P 185511-37-9P 185511-38-0P 185511-39-1P 185511-40-4P
185511-41-5P 185511-42-6P 185511-43-7P 185511-44-8P 185511-45-9P
185511-46-0P 185511-47-1P 185511-48-2P 185511-49-3P 185511-50-6P
185511-51-7P 185511-52-8P 185511-53-9P 185511-54-0P 185511-55-1P
185511-56-2P 185511-57-3P 185511-58-4P 185511-59-5P 185511-60-8P
185511-61-9P 185511-62-0P 185511-63-1P 185511-64-2P 185511-65-3P
185511-66-4P 185511-67-5P 185511-68-6P 185511-69-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT 77-86-1 92-44-4, 2,3-Dihydroxynaphthalene 99-76-3, Methyl 4-hydroxybenzoate 99-96-7, reactions 100-44-7, Benzyl chloride, reactions 100-66-3, Anisole, reactions 103-16-2, 4-Benzyloxyphenol 106-96-7, 3-Bromopropyne 108-77-0, Cyanuric chloride 147-73-9, meso-Tartaric acid 149-73-5, Trimethyl orthoformate 453-71-4, 4-Fluoro-3-nitrobenzoic acid 488-43-7, D-Glucamine 539-48-0, 4-Aminomethylbenzylamine 608-68-4, Dimethyl L-tartrate, reactions 618-83-7 619-33-0, 1,1-Dichloro-2,2-diethoxyethane 620-92-8, Bis(4-hydroxyphenyl)methane 883-99-8, Methyl 3-hydroxynaphthalene-2-carboxylate 1198-69-2 1253-46-9 1667-11-4, 4-Chloromethylbiphenyl 1779-11-9 2150-44-9, Methyl 3,5-dihydroxybenzoate 2862-10-4 3969-84-4 4397-53-9, 4-Benzyloxybenzaldehyde 4422-95-1, 1,3,5-Benzenetricarbonyl chloride 5057-96-5 5292-43-3, tert-Butyl bromoacetate 6284-40-8, N-Methyl-D-glucamine 13171-64-7, Dimethyl D-tartrate 13811-71-7, Diethyl D-tartrate 15826-37-6 17295-11-3, Methyl 6-hydroxynaphthalene-2-carboxylate 19139-74-3 19367-38-5 23788-74-1 24808-45-5, Mucic acid dimethyl ester 37002-45-2 40330-92-5 40501-41-5, Methyl 4'-hydroxybiphenyl-4-carboxylate 51064-65-4 52189-87-4 63700-05-0 78469-78-0 83511-07-3 84278-72-8 91307-39-0 125001-62-9 126828-35-1D, resin-bound 143355-56-0 171239-70-6 185514-33-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT 2132-62-9P 10155-36-9P 10155-37-0P 13036-02-7P 22608-45-3P
51572-31-7P 71769-38-5P 83405-98-5P 98793-02-3P 108468-00-4P
114218-31-4P 139555-92-3P 145286-39-1P 148743-52-6P 154919-38-7P
154919-39-8P 171240-56-5P 179112-45-9P 185511-70-0P 185511-71-1P
185511-72-2P 185511-73-3P 185511-74-4P 185511-75-5P 185511-76-6P
185511-77-7P 185511-78-8P 185511-79-9P 185511-80-2P 185511-81-3P
185511-82-4P 185511-83-5P 185511-84-6P 185511-85-7P 185511-86-8P
185511-87-9P 185511-88-0P 185511-89-1P 185511-90-4P 185511-91-5P
185511-92-6P 185511-93-7P 185511-94-8P 185511-95-9P 185511-96-0P
185511-97-1P 185511-98-2P 185511-99-3P 185512-00-9P 185512-01-0P
185512-02-1P 185512-03-2P 185512-04-3P 185512-05-4P 185512-06-5P
185512-07-6P 185512-08-7P 185512-09-8P 185512-10-1P 185512-11-2P
185512-13-4P 185512-14-5P 185512-15-6P 185512-16-7P 185512-17-8P
185512-18-9P 185512-19-0P 185512-20-3P, tert-Butyl 4-(4-hydroxybenzyl)phenoxyacetate 185512-21-4P 185512-22-5P
185512-23-6P 185512-24-7P 185512-25-8P 185512-26-9P 185512-27-0P
185512-28-1P 185512-29-2P 185512-31-6P 185512-32-7P 185512-33-8P
185512-34-9P 185512-35-0P 185512-36-1P 185512-37-2P 185512-38-3P
185512-39-4P 185512-40-7P 185512-41-8P 185512-42-9P 185512-43-0P

185512-44-1P 185512-45-2P 185512-46-3P 185512-47-4P 185512-48-5P
185512-49-6P 185512-50-9P 185512-51-0P 185512-52-1P 185512-53-2P
185512-54-3P 185512-55-4P 185512-56-5P 185512-57-6P 185512-58-7P
185512-59-8P 185512-60-1P 185512-61-2P 185512-62-3P 185512-63-4P
185512-64-5P 185512-65-6P 185512-66-7P 185512-67-8P 185512-68-9P
185512-69-0P 185512-70-3P 185512-71-4P **185512-72-5P**
185512-73-6P 185512-75-8P 185512-76-9P 185512-78-1P 185512-80-5P
185512-81-6P 185512-82-7P 185512-83-8P 185512-84-9P 185512-86-1P
185512-88-3P 185512-89-4P 185512-90-7P 185512-91-8P 185512-92-9P
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185512-98-5P 185512-99-6P 185513-00-2P 185513-01-3P 185513-02-4P
185513-03-5P 185513-04-6P 185513-05-7P 185513-06-8P 185513-07-9P
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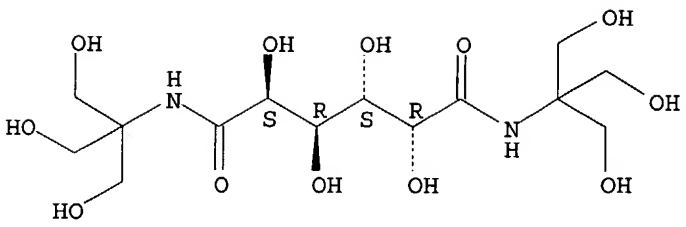
185513-15-9P 185513-16-0P 185513-17-1P 185513-18-2P 185513-19-3P
185513-20-6P 185513-21-7P 185513-22-8P 185513-23-9P 185513-24-0P
185513-25-1P 185513-26-2P 185513-27-3P 185513-28-4P 185513-29-5P
185513-30-8P 185513-31-9P 185513-32-0P 185513-33-1P 185513-34-2P
185513-35-3P 185513-36-4P 185513-37-5P 185513-38-6P 185513-39-7P
185513-40-0P 185513-41-1P 185513-42-2P 185513-43-3P 185513-44-4P
185513-45-5P 185513-46-6P 185513-47-7P 185513-48-8P 185513-49-9P
185513-50-2P 185513-51-3P 185513-52-4P 185513-53-5P 185513-54-6P
185513-55-7P 185513-56-8P 185513-57-9P 185513-58-0P 185513-59-1P
185513-60-4P 185513-61-5P 185513-62-6P 185513-63-7P 185513-64-8P
185513-65-9P 185513-66-0P 185513-67-1P 185513-68-2P 185513-69-3P
185513-70-6P 185513-71-7P 185513-72-8P 185513-73-9P 185513-74-0P
185513-75-1P 185513-76-2P 185513-77-3P 185513-78-4P 185513-79-5P
185513-80-8P 185513-81-9P 185513-82-0P 185513-83-1P 185513-84-2P
185513-85-3P 185513-86-4P 185513-87-5P 185513-88-6P 185513-89-7P
185513-90-0P 185513-91-1P 185513-92-2P 185513-93-3P 185513-94-4P
185513-95-5P 185513-96-6P 185513-97-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT 185513-98-8P 185513-99-9P 185514-00-5P 185514-01-6P 185514-02-7P
185514-03-8P 185514-04-9P 185514-05-0P 185514-06-1P 185514-07-2P
185514-08-3P 185514-09-4P 185514-10-7P 185514-11-8P 185514-12-9P
185514-13-0P 185514-14-1P 185514-15-2P 185514-16-3P 185514-17-4P
185514-18-5P 185514-19-6P 185514-20-9P 185514-21-0P 185514-22-1P
185514-23-2P 185514-24-3DP, resin-bound 185514-25-4DP, resin-bound
185514-26-5DP, resin-bound 185514-27-6DP, resin-bound 185514-28-7DP, resin-bound 185514-29-8DP, resin-bound 185514-30-1DP, resin-bound
185514-31-2P 185514-32-3P 185514-34-5P 185514-35-6P 185514-36-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

IT **185512-72-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)

RN 185512-72-5 HCAPLUS
CN Galactaramide, N,N'-bis[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



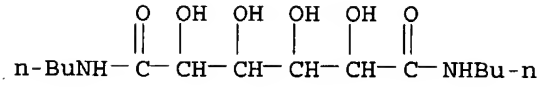
L63 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:56392 HCAPLUS
DN 124:144702
ED Entered STN: 27 Jan 1996
TI Carbohydrate acid amide plant fertilizers.
IN Kiely, Donald E.
PA USA
SO U.S., 5 pp. Cont.-in-part of U.S. 5,329,044.
CODEN: USXXAM
DT Patent
LA English
IC ICM C05F011-00
ICS C07C229-00; C08G004-00
NCL 071027000
CC 19-6 (Fertilizers, Soils, and Plant Nutrition)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5478374	A	19951226	US 1994-253918	19940603 <--
	US 5329044	A	19940712	US 1992-928007	19920812 <--
PRAI	US 1992-928007		19920812 <--		

CLASS

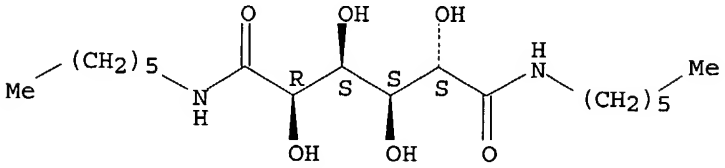
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5478374	ICM	C05F011-00
	ICS	C07C229-00; C08G004-00
	NCL	071027000

AB The nitrogen in C5 or C6 aldonamides, such as a gluconamide, or aldaramides, such as a glucaramide, is available to support plant growth, i.e. the materials act as nitrogen fertilizers. Examples include N-butylgluconamide, N-dodecylgluconamide, etc.
ST fertilizer aldonamide aldaramide
IT Fertilizers
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(aldonamides and aldaramides)
IT 3118-85-2, Gluconamide **6614-45-5**, N,N'-Dibutyl-D-glucaramide
6614-50-2, D-Glucaramide 18375-57-0 18375-63-8 22140-16-5
156016-06-7 170106-04-4 170106-05-5 **172957-31-2**
172957-32-3 172957-33-4 172957-35-6 172957-36-7
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer)
IT 3118-85-2D, Gluconamide, derivs.
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizers)
IT **6614-45-5**, N,N'-Dibutyl-D-glucaramide **156016-06-7**
172957-31-2
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fertilizer)
RN 6614-45-5 HCAPLUS
CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



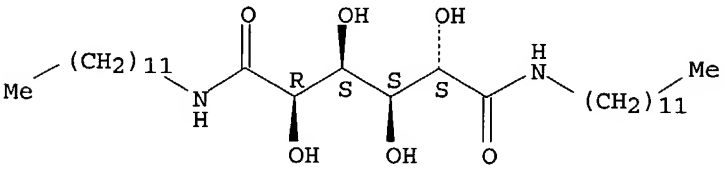
RN 156016-06-7 HCAPLUS
CN D-Glucaramide, N,N'-dihexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



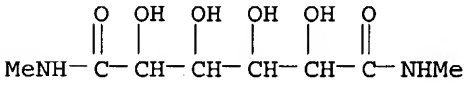
RN 172957-31-2 HCAPLUS
CN D-Glucaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



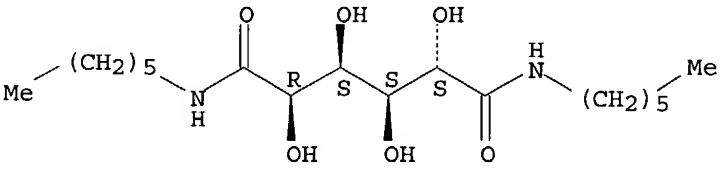
L63 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:436527 HCAPLUS
DN 121:36527
ED Entered STN: 23 Jul 1994
TI Computer aided structural studies of poly(alkylene D-glucaramides)
AU Chen, Liang; Kiely, Donald E.
CS Dep. Chem., Univ. Alabama, Birmingham, AL, 35294, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (**1993**), 34(2), 550-1
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
CC 36-2 (Physical Properties of Synthetic High Polymers)
AB Conformations of the title hydroxy-pendent polyamides are determined via computer simulations.
ST polyglucaramide conformation computer simulated; polyamide hydroxy pendent conformation model; polyalkylene glucaramide conformation computer simulated
IT Chains, chemical
(conformation of, of hydroxy-pendent polyamides, computer-simulated)
IT Polyamides, properties
RL: PRP (Properties)
(hydroxy-containing, conformation of, computer-simulated)
IT **156016-05-6 156016-06-7**
RL: PRP (Properties)
(conformation of, as model for poly(alkylene glucaramides))
IT 152174-01-1
RL: PRP (Properties)
(conformation of, computer-simulated)
IT **156016-05-6 156016-06-7**

RL: PRP (Properties)
(conformation of, as model for poly(alkylene glucaramides))
RN 156016-05-6 HCAPLUS
CN D-Glucaramide, N,N'-dimethyl- (9CI) (CA INDEX NAME)



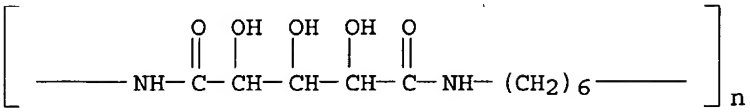
RN 156016-06-7 HCAPLUS
CN D-Glucaramide, N,N'-dihexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

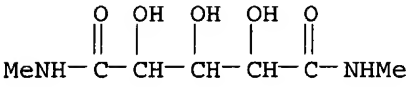


L63 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:7009 HCAPLUS
DN 114:7009
ED Entered STN: 12 Jan 1991
TI Molecular modeling of acyclic carbohydrate derivatives N,N'-dimethyl- and N,N'-dihexylxylaramide. Model compounds for synthetic poly(hexamethylenexylaramide)
AU Chen, L.; Haraden, B.; Kane, R. W.; Kiely, D. E.; Rowland, R. S.
CS Dep. Chem., Univ. Alabama, Birmingham, AL, 35294, USA
SO ACS Symposium Series (**1990**), 430(Comput. Model. Carbohydr. Mol.), 141-51
CODEN: ACSMC8; ISSN: 0097-6156
DT Journal
LA English
CC 33-5 (Carbohydrates)
Section cross-reference(s): 22
AB A symposium report.
ST mol modeling polyhexamethylenexylaramide analog symposium; carbohydrate acyclic xylaramide mol modeling symposium
IT Computer program
(MacroModel v.2 for mol. modeling of conformation of xylaramides)
IT Computer application
(in mol. modeling of conformation from xylaramides)
IT Nuclear magnetic resonance
(in xylaramides)
IT Conformation and Conformers
(of xylaramides, mol. modeling of, computer application in)
IT 87-99-0, Xylitol 6330-69-4 **32038-06-5D**, Poly(hexylaminexylaramide), model compds. for **130741-87-6**, N,N'-Dimethylxylaramide **130741-88-7**, N,N'-Dihexylxylaramide 130741-89-8
RL: PROC (Process)
(mol. modeling of, using NacroModelD.2 computer program)
IT **32038-06-5D**, Poly(hexylaminexylaramide), model compds. for **130741-87-6**, N,N'-Dimethylxylaramide **130741-88-7**, N,N'-Dihexylxylaramide
RL: PROC (Process)
(mol. modeling of, using NacroModelD.2 computer program)

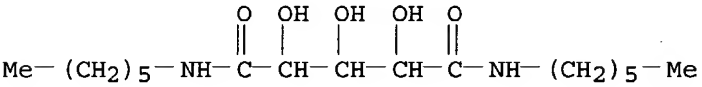
RN 32038-06-5 HCAPLUS
CN Poly(iminoxylaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



RN 130741-87-6 HCAPLUS
CN Xylaramide, N,N'-dimethyl- (9CI) (CA INDEX NAME)

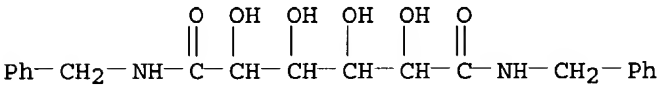


RN 130741-88-7 HCAPLUS
CN Xylaramide, N,N'-dihexyl- (9CI) (CA INDEX NAME)



L63 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:572856 HCAPLUS
DN 113:172856
ED Entered STN: 09 Nov 1990
TI Ring-opening polyaddition of D-glucaro-1,4:6,3-dilactone with p-xylylenediamine
AU Hashimoto, Kazuhiko; Okada, Masahiko; Honjou, Naomi
CS Fac. Agric., Nagoya Univ., Nagoya, 464-01, Japan
SO Makromolekulare Chemie, Rapid Communications (**1990**), 11(8), 393-6
CODEN: MCRCD4; ISSN: 0173-2803
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 44
AB D-Glucaric acid is converted to (1R,4R,5R,8S)-4,8-dihydroxy-2,6-dioxabicyclo[3.3.0]octane-3,7-dione, which is then polycondensed with p-xylylenediamine to form poly(p-xylylene-D-glucaramide); the resulting polyamide has pendent hydroxyl groups, and is the 1st polyamide to be prepared from saccharic dilactones.
ST polycondensation saccharic lactone amine; polyamide pendent hydroxyl prepn; ring opening polymn saccharic lactone
IT Polyamides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(aliphatic-aromatic, preparation of, with pendent hydroxyl groups, from ring-opening of glucaric acid-based dilactones with diamines)
IT Polymerization
(ring-opening, of glucaric acid-based dilactones, with aromatic diamines)
IT 826-91-5
RL: USES (Uses)
(condensation of, with benzylamine or xylylenediamine)
IT 100-46-9, Benzenemethanamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with dilactone of glucaric acid)

IT 539-48-0, 1,4-Benzenedimethanamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(polycondensation of, with dilactone of glucaric acid)
IT 129757-83-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and mol. weight of)
IT **6614-44-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and solubility of)
IT **6614-44-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and solubility of)
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:8070 HCAPLUS
DN 112:8070
ED Entered STN: 06 Jan 1990
TI Aldaric acid-based polyhydroxypolyamides and their manufacture
IN Kiely, Donald E.; Lin, Tsu Hsing
PA Research Corp. Technologies, Inc., USA
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C08G004-00
NCL 528230000
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 33, 44
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4833230	A	19890523	US 1988-209663	19880621 <--
PRAI US 1988-209663		19880621 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4833230	ICM	C08G004-00
	NCL	528230000

AB The title polymers [CO(CHOH)xCONHCH2(CR1H)y(CR2H)zCH2NH]n (R1-2 = H, C1-50 alkyl, C2-50 alkenyl, C7-50 aralkyl; x = 1-6; y, z = 0-30; n ≥ 10), which do not include poly(hexamethylene galactaramide) or poly(ethylene galactaramide), are manufactured by oxidizing an aldose, esterifying the resulting aldaric diacid, acid-lactone, and/or dilactone with a C1-6 alkanol in an acidic environment, then polycondensing the ester with a primary diamine in an alkaline solution in polar organic solvents. Thus, dissolving
22.8 mmol glucaric acid esters (prepared by treating Ca glucarate with acidIC cation exchange resin and refluxing with methanolic HCl) in 50 mL MeOH containing 1 mL Et3N and 25.5 mmol hexamethylenediamine, and refluxing 2 h gave poly(hexamethylene glucaramide) having m.p. 190-205°.
ST polyhexamethylene glucaramide prepn; glucaric acid hexamethylenediamine copolymer; polyhydroxy polyamide carbohydrate based prepn; aldose sugar oxidn esterification polycondensation
IT Polyamides

RL: SPN (Synthetic preparation); PREP (Preparation)
(aldaric acid-bases; preparation of, from diamines and aldaric diacid alkyl esters)

IT Carbohydrates, esters
RL: RCT (Reactant); RACT (Reactant or reagent)
(aldaric acids, esters, polymers; with diamines, manufacture of)

IT Polymerization
(solution, of diamines with aldose diacid alkyl esters)

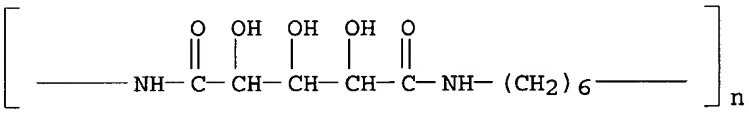
IT 123960-97-4P 123961-06-8P 123977-26-4P 123977-27-5P 123977-28-6P
123977-29-7P 123977-30-0P 123977-31-1P 124020-37-7P 124094-87-7P
124094-88-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, from lactone-containing acid mixture)

IT 3868-17-5P 123960-21-4P 123960-96-3P 124151-83-3P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of)

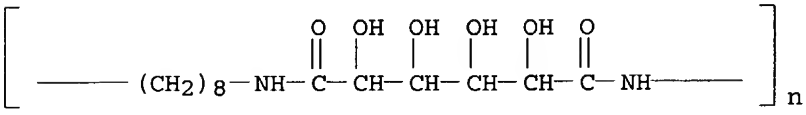
IT **32038-06-5P**, Poly(iminoxylaroylimino-1,6-hexanediyl)
124056-42-4P 124056-43-5P **261634-72-4P 261634-73-5P**
261635-32-9P 261635-80-7P 261636-11-7P
261636-12-8P, Poly(iminoxylaroylimino-1,8-octanediyl)
261636-13-9P 301166-03-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **32038-06-5P**, Poly(iminoxylaroylimino-1,6-hexanediyl)
261634-72-4P 261634-73-5P 261635-32-9P
261635-80-7P 261636-11-7P 261636-12-8P,
Poly(iminoxylaroylimino-1,8-octanediyl) **261636-13-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

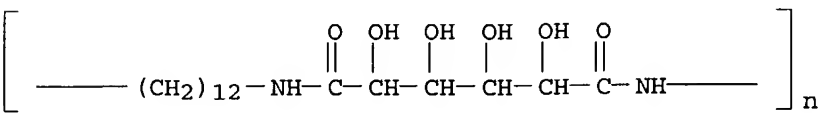
RN 32038-06-5 HCAPLUS
CN Poly(iminoxylaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



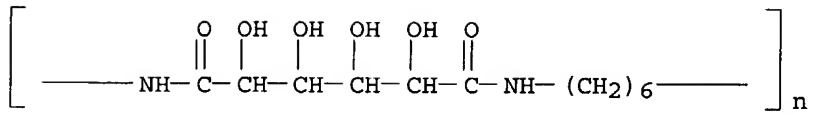
RN 261634-72-4 HCAPLUS
CN Poly(iminogalactaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



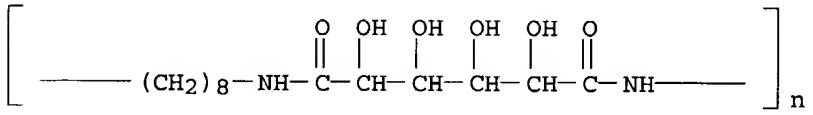
RN 261634-73-5 HCAPLUS
CN Poly(iminogalactaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



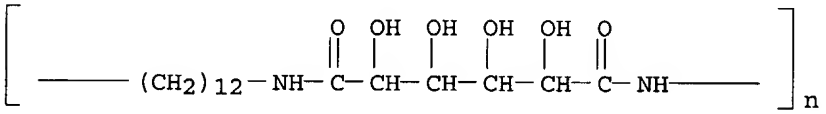
RN 261635-32-9 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



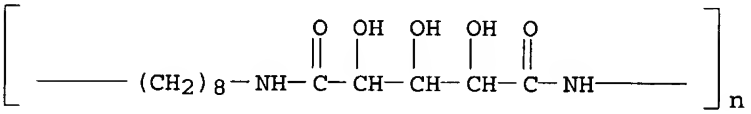
RN 261635-80-7 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



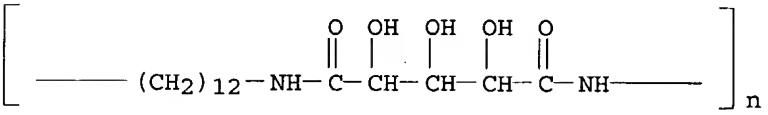
RN 261636-11-7 HCAPLUS
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



RN 261636-12-8 HCAPLUS
CN Poly(iminoxylaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)

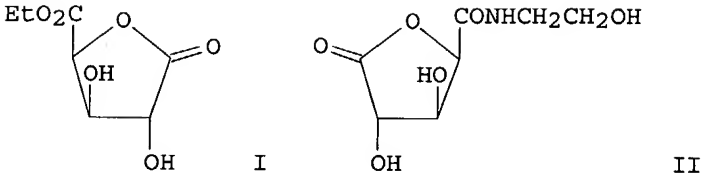


RN 261636-13-9 HCAPLUS
CN Poly(iminoxylaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



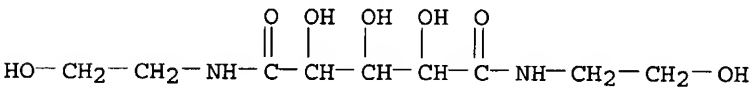
L63 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:438140 HCAPLUS
DN 109:38140
ED Entered STN: 05 Aug 1988
TI The formation of intermediate lactones during aminolysis of diethyl xylarate
AU Hoagland, Peter D.; Pessen, Helmut; McDonald, George G.
CS East. Reg. Res. Cent., U. S. Dep. Agric., Philadelphia, PA, 19118, USA
SO Journal of Carbohydrate Chemistry (**1987**), 6(3), 495-9
CODEN: JCACDM; ISSN: 0732-8303
DT Journal
LA English
CC 33-8 (Carbohydrates)

OS CASREACT 109:38140
GI



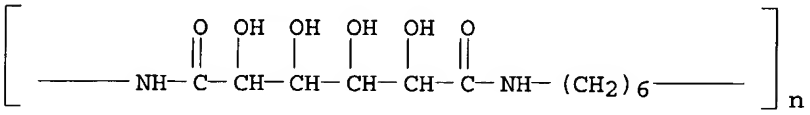
I II

AB Di-Et xylarate in Me2SO at 30° in the presence of H2NCH2CH2OH, is rapidly converted into Et D,L-xylaro-1,4-lactone (I), which reacts with the primary amine to give Et N-(2-hydroxyethyl)-D,L-xylaramide. This compound then forms N-(2-hydroxyethyl)-D,L-xylaramide-2,5-lactone (II), which in turn reacts with ethanolamine to produce the final product, N,N'-bis-(2-hydroxyethyl)-D,L-xylaramide. This sequence of reactions was established by 13C NMR spectroscopy.
ST aminolysis diethyl xylarate intermediate lactone; bishydroxyethylxylaramide; xylaramide bishydroxyethyl
IT Aminolysis
(of di-Et xylarate, formation of intermediate lactones in)
IT 141-43-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(aminolysis by, of di-Et xylarate, formation of intermediate lactones in)
IT 115175-38-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(aminolysis of, formation of intermediate lactones in)
IT 10158-64-2, Xylaric acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with ethanol)
IT 115175-39-8P 115175-40-1P 115175-41-2P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in aminolysis of di-Et xylarate with ethanolamine)
IT **115175-42-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by aminolysis of di-Et xylarate with ethanolamine, formation of intermediate lactones in)
IT **115175-42-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by aminolysis of di-Et xylarate with ethanolamine, formation of intermediate lactones in)
RN 115175-42-3 HCAPLUS
CN Xylaramide, N,N'-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1986:34412 HCAPLUS
DN 104:34412
ED Entered STN: 08 Feb 1986
TI Polycondensation of diethyl mucate with hexamethylenediamine in the presence of poly(4-hydroxystyrene)

AU Ogata, Naoya; Sanui, Kohei; Yoshikawa, Masakazu; Saigou, Yumi
CS Fac. Sci. Technol., Sophia Univ., Tokyo, 102, Japan
SO Polymer Journal (Tokyo, Japan) (**1985**), 17(11), 1221-3
CODEN: POLJB8; ISSN: 0032-3896
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
AB The rate of polymerization of di-Et mucate with hexamethylenediamine in DMSO or 1,4-dioxane (I) at 60° in the presence of poly(4-hydroxystyrene) (II) [24979-70-2] was faster than that in the presence of 4-ethylphenol or without II. The rate enhancement due to II in I was more pronounced than that in DMSO. This suggested that the rate enhancement effect might be attributed to a H-bonding interaction.
ST polymn diethyl mucate hexamethylenediamine polyhydroxystyrene; diethyl mucate hexamethylenediamine copolymer prepn polyhydroxystyrene; polyamide prepn polyhydroxystyrene
IT Polyamides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-Et mucate-hexamethylenediamine copolymer, preparation of, in presence of poly(hydroxystyrene))
IT Polymerization
(of di-Et mucate and hexamethylenediamine, in presence of poly(hydroxystyrene))
IT 24979-70-2
RL: USES (Uses)
(di-Et mucate polymerization with hexamethylenediamine in presence of)
IT 59268-40-5P **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of poly(hydroxystyrene))
IT **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of poly(hydroxystyrene))
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



L63 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:192420 HCAPLUS
DN 100:192420
ED Entered STN: 08 Jun 1984
TI Polycondensation reactions in the presence of polymer matrixes
AU Sanui, Kohei
CS Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SO Contemporary Topics in Polymer Science (**1984**), 4, 67-93
CODEN: CTPSDH; ISSN: 0160-6727
DT Journal
LA English
CC 35-5 (Chemistry of Synthetic High Polymers)
AB The rate of polymerization of di-Me tartrate (I) with hexamethylenediamine (II) was enhanced by polymer matrixes such as poly(vinylpyrrolidone) [9003-39-8], polysaccharides, and poly(vinyl alc.) (III) [9002-89-5], which were interacted with I or the resulting polyamide by means of H bonding. The rate enhancement was more pronounced with increasing mol. weight of the polymer matrixes. The formation of the polymer complex between the resulting polyamide and III during the polymerization was dependent on the concentration of monomers and III and gelation of the solution was observed at certain

concns. of III. The presence of poly(2-vinylpyridine) [25014-15-7] or poly(4-vinylpyridine) (IV) [25232-41-1] did not enhance the rate of polymerization of di-Et mucate with II in DMSO. Matrix effects of IV on the rate enhancement and the solution viscosity of the resulting polyamide were more pronounced with increasing volume fraction of dioxane (V) in the mixture of DMSO and V. The rate of polymerization of di-Et chelidonate (VI) with diamines in V was enhanced either by the presence of poly(vinylcarbazole) (VII) [25067-59-8] or by irradiation with UV light. The polymerization of VI with II in the presence of VII was accelerated by UV irradiation probably due to the energy transfer of light.

ST dimethyl tartrate polymn hexamethylenediamine; diethyl mucate polymn hexamethylenediamine; polyvinylpyrrolidone dimethyl tartrate polymn hexamethylenediamine; polysaccharide dimethyl tartrate polymn hexamethylenediamine; polyvinyl alc polymn hexamethylenediamine; gelation polyamide polyvinyl alc; matrix effect polyvinylpyrridine polymn hexamethylenediamine; chelidonate diethyl polymn hexamethylenediamine photochem; polyvinyl carbazole polymn hexamethylenediamine

IT Polysaccharides, uses and miscellaneous
RL: USES (Uses)
(di-Me tartrate polymerization with hexamethylenediamine in presence of)

IT Polymerization
(of diamines with diesters, polymer matrix effect on)

IT Solvent effect
(on polymerization of di-Me tartrate with hexamethylenediamine)

IT Polyamides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from diamines and diesters, polymer matrix effect on)

IT 86-28-2 25067-59-8
RL: USES (Uses)
(di-Et chelidonate polymerization with diamines in presence of)

IT 25014-15-7 25232-41-1
RL: USES (Uses)
(di-Et mucate polymerization with hexamethylenediamine in presence of, mol. weight in relation to)

IT 9002-89-5 9003-39-8
RL: USES (Uses)
(di-Me tartrate polymerization with hexamethylenediamine in presence of)

IT 54588-03-3P 54588-13-5P 78198-33-1P 78198-34-2P 78198-54-6P 78198-55-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, effects of polymer matrix and UV light on)

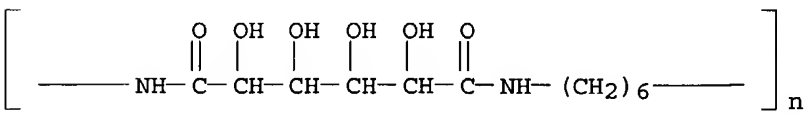
IT 52685-28-6P 52704-69-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, effects of polymer matrix and solvent on)

IT 59268-40-5P **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, polymer matrix effect on)

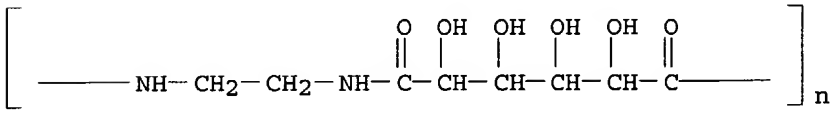
IT **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, polymer matrix effect on)

RN 59268-69-8 HCAPLUS

CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)

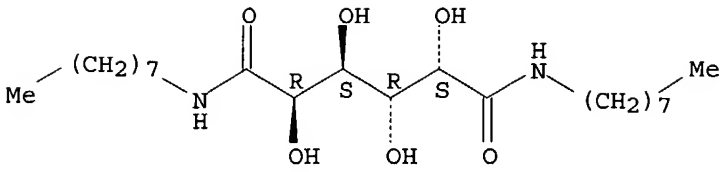


L63 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1982:85890 HCAPLUS
DN 96:85890
ED Entered STN: 12 May 1984
TI The formation of intermediate lactones during aminolysis of diethyl galactarate
AU Hoagland, Peter D.
CS East. Reg. Res. Cent., USDA, Philadelphia, PA, 19118, USA
SO Carbohydrate Research (**1981**), 98(2), 203-8
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
CC 33-8 (Carbohydrates)
AB The aminolysis of di-Et galactarate proceeds through intermediate γ-lactones. In Me2SO at 31°, the 1,6-diester is quickly converted into the 6-ester 1,4-lactone through base catalysis, and this lactone reacts with a primary amine to yield a 6-Et galactaric 1-amide that rapidly affords the 6,3-lactone, which reacts with the amine to give the galactaric diamide. The reaction sequence was established by 13C-NMR spectroscopy, which suggested competitive, consecutive, second-order kinetics.
ST aminolysis diethyl galactarate
IT Kinetics of aminolysis
(of di-Et galactarate)
IT Aminolysis
(of di-Et galactarate, formation of intermediate lactones during)
IT 15909-67-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(aminolysis of, formation of intermediate lactones during)
IT 80714-43-8P 80714-44-9P
RL: PREP (Preparation)
(formation and carbon-13 NMR of)
IT 59268-41-6P **59268-70-1P 80714-41-6P 80714-42-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 107-15-3, reactions 111-86-4 141-43-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et galactarate)
IT **59268-70-1P 80714-41-6P 80714-42-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 59268-70-1 HCAPLUS
CN Poly(imino-1,2-ethanediyliminogalactaroyl), rel- (9CI) (CA INDEX NAME)



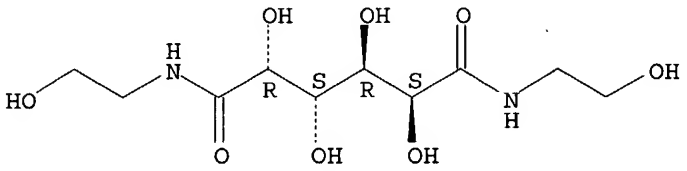
RN 80714-41-6 HCAPLUS
CN Galactaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



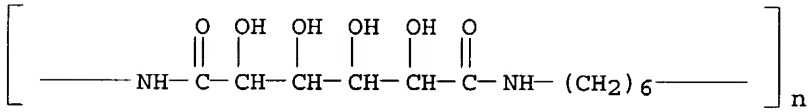
RN 80714-42-7 HCAPLUS
CN Galactaramide, N,N'-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



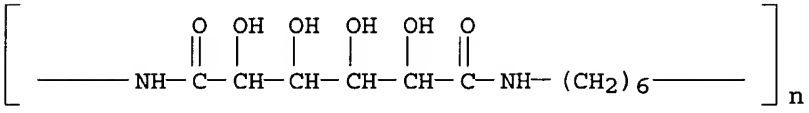
L63 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:604527 HCAPLUS
DN 95:204527
ED Entered STN: 12 May 1984
TI Molecular weight control in polycondensation of hydroxyl diesters with hexamethylenediamine by polymer matrixes
AU Ogata, Naoya; Sanui, Kohei; Tanaka, Hozumi; Matsuo, Hajime; Iwaki, Fusako
CS Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (**1981**), 19(10), 2609-17
CODEN: JPLCAT; ISSN: 0449-296X
DT Journal
LA English
CC 35-4 (Synthetic High Polymers)
AB Polycondensation reactions of hydroxyl diesters such as di-Me tartrate and di-Et mucate with hexamethylenediamine were carried out in the presence of vinylpyridine homopolymers and copolymers with styrene of different compns. as matrix polymers in order to investigate the difference in interaction forces with monomers or the resulting polyamides owing to H bonding. Matrix effects of poly(4-vinylpyridine) (I) [25232-41-1] on the rate enhancement and solution viscosity of the resulting polyamide became more pronounced with decreasing solvent polarity. This result suggests that the matrix effects of I on polycondensation are due to hydrogen bonding interactions between hydroxyl diesters and I. The addition of I increased the mol. weight of the resulting polyamide to a higher extent than poly(2-vinylpyridine) [25014-15-7], and the mol. weight of the resulting polyamide could be controlled according to the mol. weight of I. The composition of styrene-4-vinylpyridine copolymer [26222-40-2] as matrix polymer also affected the mol. weight of the polyamide, which increased with increasing 4-vinylpyridine unit content in the copolymers.
ST matrix polycondensation hexamethylenediamine diester; polyvinylpyridine matrix soln polycondensation; tartrate diamine polyamide; mucate diamine polyamide
IT Hydrogen bond
(in polymerization of di-Me tartrate or di-Et mucate with hexamethylenediamine
in presence of vinylpyridine polymers)
IT Polymerization catalysts
(vinylpyridine polymers, as matrixes, for hexamethylenediamine with

di-Me tartrate or di-Et mucate)
IT Polyamides, preparation
(hydroxy-, preparation of, in presence of matrix polymers)
IT Polymerization
(matrix, of hexamethylenediamine with di-Me tartrate or di-Et mucate in presence of vinylpyridine polymers)
IT 25014-15-7 25232-41-1 26222-40-2
RL: USES (Uses)
(hexamethylenediamine polycondensation with di-Me tartrate or di-Et mucate in presence of, matrix effect in)
IT 52685-28-6P 52704-69-5P 59268-40-5P **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of matrix polymers)
IT **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of matrix polymers)
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



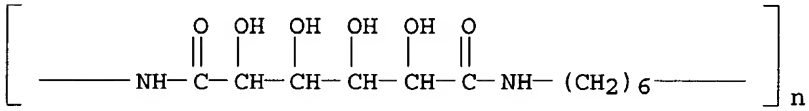
L63 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1980:215825 HCAPLUS
DN 92:215825
ED Entered STN: 12 May 1984
TI Polycondensation of diethyl mucate with hexamethylenediamine in the presence of poly(vinyl pyridine)
AU Ogata, Naoya; Sanui, Kohei; Nakamura, Hiroyuki; Kishi, Hiroyuki
CS Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (**1980**), 18(3), 933-8
CODEN: JPLCAT; ISSN: 0449-296X
DT Journal
LA English
CC 35-3 (Synthetic High Polymers)
AB The polymerization of di-Et mucate with 1,6-hexanediamine in the presence of poly(4-vinyl pyridine) (I) [25232-41-1] at 60° in DMSO gave a polyamide [59268-40-5] with mol. weight higher than those of polyamides prepared in the absence of I or in the presence of poly(2-vinyl pyridine) [25014-15-7]. The rate of polymerization was rarely enhanced by polymer matrixes such as I. During polymerization in the presence of I the solution gelled when kept several days at 30°, possibly owing to formation of a polyamide-I complex during polymerization
ST mucate hexanediamine polyamide; vinylpyridine polymer matrix polymn; matrix polymn mucate diamine; polyamide prepn matrix effect
IT Polyamides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of poly(vinylpyridine) matrix)
IT Polymerization
(matrix, of di-Et mucate with hexanediamine in presence of poly(vinylpyridine))
IT 25014-15-7 25232-41-1
RL: USES (Uses)
(matrix, for polymerization of di-Et mucate with hexanediamine)
IT 59268-40-5P **59268-69-8P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of poly(vinylpyridine) matrix)
IT **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in presence of poly(vinylpyridine) matrix)
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



L63 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1980:76964 HCAPLUS
DN 92:76964
ED Entered STN: 12 May 1984
TI Solution polycondensation of diesters and diamines having hetero atom groups in polar solvents
AU Ogata, Naoya; Sanui, Kohei; Ohtake, Takeshi; Nakamura, Hiroyuki
CS Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SO Polymer Journal (Tokyo, Japan) (**1979**), 11(10), 827-33
CODEN: POLJB8; ISSN: 0032-3896
DT Journal
LA English
CC 35-3 (Synthetic High Polymers)
AB Hetero atom groups (e.g. ether or hydroxyl groups) greatly enhanced the reactivity of diesters in polycondensation reactions of diesters and diamines in polar solvents when they were introduced at the α or β positions to the ester carbonyl group, but these groups did not change the reactivity of the diamines. Polycondensation reactions occurred in MeOH solution under mild conditions to form polyamides, while hydrolysis of the diesters occurred simultaneously with polycondensation, yielding nylon salts in aqueous solution The apparent orders of the polycondensation reaction of these diesters with diamines were determined
ST polycondensation diester diamine hetero atom; solvent effect polycondensation diester diamine; polymn kinetics diester diamine soln; polyamide hetero atom soly
IT Polyamides, preparation
RL: PREP (Preparation)
(from hetero atom-containing diesters and hetero atom-containing diamines)
IT Substituent effect
(on polymerization of hetero atom-containing diesters with diamines)
IT Solvent effect
(on solution polymerization of hetero atom-containing diamines with hetero atom.-containing diesters)
IT Kinetics of polymerization
Polymerization
(solution, of hetero atom-containing diamines with hetero atom-containing diesters)
IT 627-93-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with hetero atom-containing diamines)
IT 124-09-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with hetero atom-containing diesters)
IT 87-91-2P 15909-67-8P 38270-66-5P 54665-51-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, with hetero atom-containing diamines)

IT 2157-24-6P 2997-01-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, with hetero atom-containing diesters)
IT 59268-40-5P **59268-69-8P** 60089-32-9P 63179-59-9P
66099-57-8P 67379-92-4P 67380-20-5P 72641-97-5P 72641-98-6P
72641-99-7P 72642-00-3P 72642-01-4P 72642-02-5P 72642-03-6P
72642-04-7P 72642-45-6P 72642-46-7P 72642-47-8P 72642-48-9P
72642-49-0P 72642-50-3P 72642-51-4P 72642-52-5P 72690-99-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and solubility and thermal properties of)
IT **59268-69-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and solubility and thermal properties of)
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



L63 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:575766 HCAPLUS
DN 91:175766
ED Entered STN: 12 May 1984
TI Synthesis of polyamides and polyesters having various functional groups
AU Ogata, Naoya
CS Dep. Chem., Sophia Univ., Tokyo, 102, Japan
SO Journal of Macromolecular Science, Chemistry (**1979**), A13(4), 477-501
CODEN: JMCHBD; ISSN: 0022-233X
DT Journal
LA English
CC 35-3 (Synthetic High Polymers)
AB Functional group-containing polyamides can frequently be synthesized directly if the diacid component is sufficiently reacted. Functional group-containing polyesters are best obtained by post-reactions of unsatd. polyesters. Polyamides and polyesters with free OH groups have high moisture adsorption and are suitable for membrane use. Reaction of functional polymers with cinnamoyl chloride [102-92-1] leads to photosynthesis polymers.
ST polyamide functional group contg; polyester functional group contg; hydrophilic polyamide polyester membrane; photosensitive polyamide polyester
IT Hydroformylation
Phosphonylation
(of unsatd. polyesters)
IT Solvent effect
(on preparation of functional group-containing polyamides)
IT Polyamides, preparation
Polyesters, preparation
RL: PREP (Preparation)
(synthesis of functional group-containing)
IT 31987-81-2 32217-80-4 70559-12-5 70559-27-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxidn. and hydrolysis of)
IT 71035-00-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxidn. of)

IT 109-73-9D, reaction products with oxirane-containing polyamides 124-09-4D, reaction products with oxirane-containing polyamides 141-43-5D, reaction products with oxirane-containing polyamides 302-01-2D, reaction products with oxirane-containing polyamides 2372-88-5D, reaction products with oxirane-containing polyamides 31987-81-2D, hydroformylated 32217-80-4D, hydroformylated 36311-23-6D, hydroformylated 36568-43-1D, hydroformylated 70559-12-5D, hydroformylated 70559-27-2D, hydroformylated
RL: PROC (Process)
(moisture absorption of)

IT 50-99-7, uses and miscellaneous 7585-39-9 9002-89-5 9057-02-7
RL: USES (Uses)
(polycondensation of di-Me tartrate with hexamethylenediamine in presence of)

IT 52685-28-6P 52704-69-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystallinity of)

IT 58048-98-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and flocculant properties of water-soluble)

IT 71029-48-6P 71029-69-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with amines)

IT 71029-49-7P 71029-50-0P 71029-80-6P 71034-65-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring-opening reaction of)

IT 121-91-5DP, diesters, polymers with hexamethylenediamine 499-81-0DP, diesters, polymers with hexamethylenediamine 499-82-1DP, diesters, polymers with diamines 499-83-2DP, diesters, polymers with diamines 3387-26-6DP, diesters, polymers with hexamethylenediamine 4282-29-5DP, diesters, polymers with hexamethylenediamine 17773-22-7DP, diesters, polymers with hexamethylenediamine 25668-34-2P 26894-23-5P 43015-44-7DP, diesters, polymers with hexamethylenediamine 55155-28-7P 58998-29-1P 69725-74-2P 70487-54-6P 71029-54-4P 71029-55-5P 71029-56-6P 71029-57-7P 71029-73-7P 71029-74-8P 71029-75-9P 71029-76-0P 71034-68-9P 71034-69-0P 71034-99-6DP, diesters, polymers with hexamethylenediamine
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and solubility of)

IT 53795-00-9P 53795-03-2P 62975-42-2P 63119-88-0P 65506-51-6P 66514-89-4P 70748-35-5P 70748-36-6P 70748-41-3P 71029-45-3P 71029-46-4P 71029-47-5P 71029-52-2P 71029-53-3P 71029-58-8P 71029-60-2P 71029-70-4P 71029-71-5P 71029-72-6P 71029-77-1P 71029-78-2P 71034-66-7P 71034-67-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 71029-51-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of photocurable)

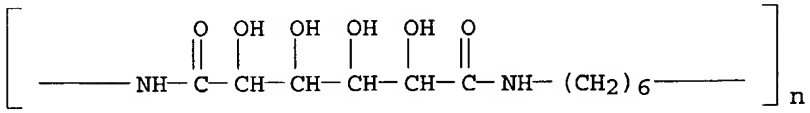
IT 54588-03-3P 54588-13-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, charge-transfer complex intermediate in)

IT 59268-40-5P **59268-69-8P** 67379-92-4P 67380-20-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, solvent effect on)

IT 102-92-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxy- and amino-functional polyamides)

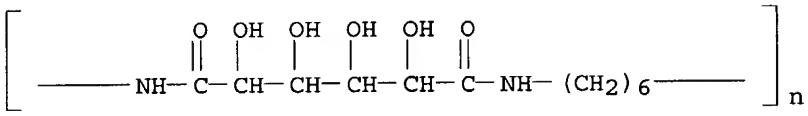
IT **59268-69-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, solvent effect on)

RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)

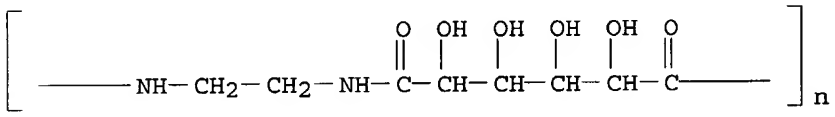


L63 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1976:406090 HCAPLUS
DN 85:6090
ED Entered STN: 12 May 1984
TI Active polycondensation of diethyl 2,3,4,5-tetrahydroxyadipate with diamines
AU Ogata, Naoya; Sanui, Kohei; Hosoda, Yoshikazu; Nakamura, Hiroyuki
CS Dep. Chem., Sophia Univ., Tokyo, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (**1976**), 14(4), 783-92
CODEN: JPLCAT; ISSN: 0449-296X
DT Journal
LA English
CC 35-3 (Synthetic High Polymers)
AB Polycondensation of diethyl 2,3,4,5-tetrahydroxyadipate (I) [15909-67-8] with various diamines, e.g. hexamethylenediamine, was carried out in various solvents under mild conditions. The reaction occurred rapidly even at room temperature in polar solvents such as alcs., and in aqueous solution a cyclic products was obtained instead of linear polymers although the reaction was completed in several mins. Polymers obtained from I were linear polyamides having pendant OH groups, which decomposed on heating to .apprx.200°. A solid-phase polycondensation of the precursor polyamide yielded a high mol. weight polyamide.
ST ethyl hydroxyadipate polymn amine; solvent effect polyamide prepn; ring closure aq polyamide
IT Polymerization catalysts
(calcium chloride-lithium chloride-potassium thiocyanate, for diethyltetrahydroxyadipate with diamines)
IT Polymerization
(condensation, of diethyltetrahydroxyadipate with diamines, inorg. salt and solvent effect on)
IT Polyamides, preparation
RL: PREP (Preparation)
(from diethyltetrahydroxyadipate and diamines, solvent and inorg. salt effect on)
IT Ring closure and formation
(in polymerization of diethyltetrahydroxyadipate with diamines in presence of water)
IT Kinetics of polymerization
(of diethyltetrahydroxyadipate with diamines, solvent effect on)
IT Crosslinking
(of polyamides, by solid-phase condensation)
IT 333-20-0 7447-41-8, uses and miscellaneous 10043-52-4, uses and miscellaneous
RL: USES (Uses)
(diethyltetrahydroxyadipate-hexamethylenediamine polymerization in presence of)
IT 15909-67-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

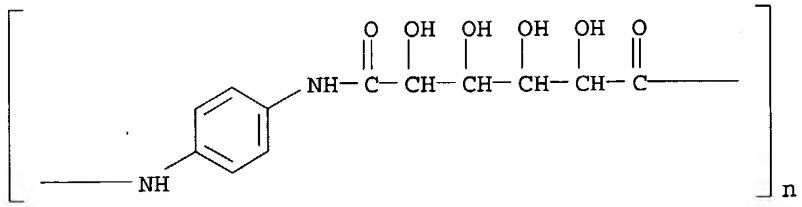
(preparation and polymerization of, with diamines)
IT 56403-09-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from diethyl-2,3,4,5-tetrahydroxyadipate and hexamethylenediamine in presence of water)
IT 59268-40-5P 59268-41-6P 59268-42-7P 59268-43-8P **59268-69-8P** **59268-70-1P** 59268-71-2P **59268-72-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, solvent and inorg. salt effect on)
IT 7732-18-5
RL: USES (Uses)
(ring formation in presence of, in polymerization of diethyltetrahydroxyadipate with hexamethylenediamine)
IT **59268-69-8P** **59268-70-1P** **59268-72-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, solvent and inorg. salt effect on)
RN 59268-69-8 HCAPLUS
CN Poly(iminogalactaroylimino-1,6-hexanediyl), rel- (9CI) (CA INDEX NAME)



RN 59268-70-1 HCAPLUS
CN Poly(imino-1,2-ethanediyliminogalactaroyl), rel- (9CI) (CA INDEX NAME)

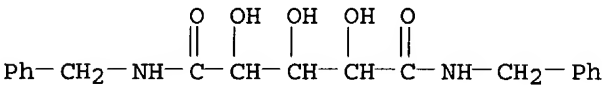


RN 59268-72-3 HCAPLUS
CN Poly[imino-1,4-phenyleneimino[(2R,3S,4R,5S)-2,3,4,5-tetrahydroxy-1,6-dioxo-1,6-hexanediyl]], rel- (9CI) (CA INDEX NAME)

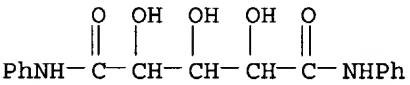


L63 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1968:22157 HCAPLUS
DN 68:22157
ED Entered STN: 12 May 1984
TI Synthesis of xylotrihydroxyglutaric acid esters and amides by transesterification with alkyl borates
AU Gertsev, V. V.
CS Mosk. Tekhnol. Inst. Legkoi Prom., Moscow, USSR
SO Zhurnal Obshchei Khimii (**1967**), 37(7), 1481-3
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA Russian

CC 33 (Carbohydrates)
AB Esters of hydroxy carboxylic acids were prepared by transesterification with alkyl borates, thus avoiding the usual difficulty of esterifying these acid-sensitive substances. xylo-Trihydroxyglutaric acid (I) (5 g.) heated in 100 ml. (BuO)3B 1 hr. at 150°, BuOH and excess (BuO)3B distilled, the residue treated with MeOH, (MeO)3B distilled, and the residue dried in vacuo, gave 98% di-Bu ester of I. I (5 g.) heated with 100 ml. PrOH until dissolved, 100 ml. C6H6 added, and the mixture refluxed with a Dean-Stark trap to sep. the evolving H2O over 2 hrs. gave 6.1 g. di-Pr ester, similar in appearance to the di-Bu ester above. This ester treated in MeOH treated with excess PhCH2NH2 10-15 min. gave 97% I dibenzylamide, decomposed 196°; PhNH2 similarly gave I dianilide, decompose 205°. I forms a benzylamine salt, which, when heated in C6H6 with separation of H2O, gave 76% of the same dibenzylamide as above; similarly was prepared 83% dianilide. A dialkyl ester of I and (CH2)6(NH2)2 in MeOH rapidly gave I polyhexamethyleneamide, decompose 209°.
ST XYLOTRIHYDROXYGLUTARATES; BORATES ALKYL TRANSESTERIFICATION
IT Esterification
(re-, trans- or inter-, of xylaric acid esters)
IT 18524-13-5P **18656-72-9P 18656-73-0P** 29696-66-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **18656-72-9P 18656-73-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18656-72-9 HCAPLUS
CN Xylaramide, N,N'-dibenzyl- (8CI) (CA INDEX NAME)



RN 18656-73-0 HCAPLUS
CN Xylaranilide (8CI) (CA INDEX NAME)



L63 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1964:3522 HCAPLUS
DN 60:3522
OREF 60:643h,644g-h,645a-e
ED Entered STN: 22 Apr 2001
TI Preparations and reactions of D-glucaric acid derivatives
AU Bognar, Rezso; Farkas, Istvan; Szabo, Ilona F.; Szabo, Gizella D.
CS Kossuth Lajos Univ., Debrecen, Hung.
SO Magyar Kemiai Folyoirat (**1963**), 69(10), 450-3
CODEN: MGKFA3; ISSN: 0025-0155
DT Journal
LA Unavailable
CC 43 (Carbohydrates)
AB Heating a mixture of 2.7 g. penta-O-acetyl-D-galactonic acid and 2.7 ml. Cl2CHOMe (I) at 70° for 1 hr., evaporating to dryness, and treating the residue with Et2O gave 92% penta-O-acetyl-D-galactonyl chloride (II), m. 79-80,° [α]20D 3.4° (c 2.93, CHCl3). A solution of 7 g. octa-O-acetylcellobionamide in 35 ml. AcOH was treated with N2O3 at 0° until the solution turned to a constant green. After 4.5 hrs. at

room temperature, it was added to 70 g. NaHCO3 in 180 ml. H2O, adjusted with 1:1 HCl to pH 3, and extracted with CHCl3 to yield 67% octa-O-acetylcellobionic acid (III), m. 138° (CHCl3-ligroine), [α]D 8.9° (c 1.76, CHCl3). A mixture of 1 g. III and 1.5 ml. I was heated at 70° for 1 hr. to give 92.7% octa-O-acetylcellobionyl chloride (IV), m. 115°, [α]D 2.1° (c 2, CHCl3). A mixture of 1 g. tetra-O-acetylgalactaric acid, 2 ml. I, and a catalytic amount of anhydrous ZnCl2 refluxed 1 hr., evaporated to dryness at 50° in vacuo, and the residue crystallized from C6H6 gave 75% tetra-O-acetylgalactaryl dichloride (V), m. 178-9°. A mixture of 1 g. penta-O-acetyl-D-gluconyl chloride (VI), 10 ml. Me2CO, and 0.31 g. NaN8 in 2 ml. H2O (prepared at 0°), after cooling 20° min., was diluted with H2O to turbidity to yield 72.7% penta-O-acetyl-D-gluconylazide (VII), m. 89° (Me2CO), [α]D 17° (c 1.71, Me2CO). II (1 g.) in 10 ml. Me2CO treated with 0.4 g. NaN3 in 2 ml. H2O at 0° gave 87% penta-O-acetyl-D-galactonylazide, m. 104-5°, [α]D 2.6° (c 2, Me2CO). IV (0.92 g.) in 10 ml. Me2CO treated with 0.4 g. NaN3 in 2 ml. H2O at 0° gave 63.7% octa-O-acetylcellobionylazide, m. 112°, [α]D 12.9° (c 1.32, CHCl3). Penta-O-acetyl-D-gluconanilide (VIII) was prepared (a) in 75.7% yield by adding 1 ml. PhNH2 to 1 g. VI in 4 ml. CHCl3 and after standing 1 hr. evaporating to dryness in vacuo, adding EtOH twice to the residue and evaporating again, and treating the residue with 1% HCl, m. 156° (50% EtOH), [α]D 38.6° (c 1.5, CHCl3), or (b) in 69% yield by adding 0.3 ml. PhNH2 to 0.3 g. VII in 3 ml. EtOAc at 0°, after standing 3 hrs. evaporating to dryness and working up as above, [α]D 41.6° (c 1, CHCl3). VIII (1 g.) in 4 ml. hot absolute MeOH was treated with 0.3 ml. N NaOMe solution to yield 73% D-gluconanilide, m. 171°, [α]D 51.3° (c 1.13, H2O). VI (1 g.) in 3 ml. Me2CO was added to 0.81 g. p-H2NC6H4SO2NH2 (IX) in 6 ml. Me2CO; after standing 30 min. the mixture was filtered and evaporated, to yield 69.6% N4-(penta-O-acetyl-D-gluconyl)sulfanilamide (X), m. 149° (EtOH-H2O), [α]D 21.5° (c 1.48, Me2CO). X (0.52 g.) in 2 ml. hot absolute MeOH was treated with 0.3 ml. N NaOMe solution, to yield 90.5% (crude) N4-(D-gluconyl)sulfanilamide, m. 198° (H2O), [α]D 46.8° (c 1, H2O). Penta-O-acetyl-D-galactonanilide, m. 172-3°, [α]D 66° (c 1.45, CHCl3), was prepared similarly from II in 79.3%, and from the azide in 73% yield. Saponification gave 64% D-galactonanilide, m. 209°, [α]D 58° (c 0.4, H2O). II (1.61 g.) in 7 ml. Me2CO was added to 1.31 g. IX in 14 ml. Me2CO and the mixture worked up to yield 87.6% N4-(penta-O-acetyl-D-galactonyl)sulfanilamide, m. 196-7°, [α]D 32.8° (c 1.34, Me2CO). Saponification gave 75.2% N4-D-galactonylsulfanilamide, m. 221°, [α]D 52.8° (c 1.44, 0.1N NaOH). Octa-O-acetylcellobionanilide was prepared from III via the acid chloride in CHCl3 in 83.9%, m. 154°, [α]D 43.7° (c 0.8, CHCl3). N4-(Octa-O-acetylcellobionyl)sulfanilamide was prepared also from the acid chloride in 84.5% yield, m. 126-8°, [α]D 17.4 (c 1, Me2CO). V (0.2 g.) in 15 ml. MeOH was refluxed with 0.5 ml. absolute C5H5N for 3 hrs. and evaporated to 5 ml. to yield 61% dimethyl tetra-O-acetylgalactarate, m. 197°. V (2 g.) in 20 ml. CHCl3 was refluxed with 1.8 ml. PhNH2 for 1 hr. to yield 67.5% tetra-O-acetylgalactaric acid dianilide, m. decompose about 300°. Saponification gave 81.9% galactaric acid dianilide, m. 248-9°. V (1.58 g.) in 40 ml. Me2CO was added to 1.28 g. IX in 24 ml. Me2CO, also containing 1.02 g. C5H5N, to give 69.5% crystalline tetra-O-acetylgalactaric acid di-p-sulfamoylanilide, m. 300-2°. Saponification gave 82% galactaric acid di-p-sulfamoylanilide, m. 259°. VII (0.72 g.) was refluxed in 20 ml. EtOH for 3 hrs., evaporated to 4 ml. in vacuo, and treated with H2O to yield 53.4% Et N-(D-gluco-pentaacetoxyamyl)urethan, m. 117-18°, [α]D 27.2° (c 1.06, CHCl3), m. 119.5° (EtOH-H2O). VII (3 g.) in 18 ml. absolute C6H6 was refluxed with 1.5 ml. PhCH2OH for 3 hrs., evaporated to dryness in vacuo, absolute EtOH was added twice and evaporated again, the residue in 25 ml. EtOH was

hydrogenated in the presence of 0.4 g. 10% Pd-C, and evaporated to dryness in vacuo. The residue was heated in 20 ml. 10% NaOH at 40° 2 hrs., EtOH and AcOH were added, the EtOH was removed in vacuo, and the residue refluxed 1 hr. with 2 ml. PhNHNH2, 2 ml. AcOH, and 10 ml. H2O to yield 14.6% D-erythro-pentose phenylosazone, m. 154-6° (decomposition) (40% EtOH).

IT Nucleosides
(purine)

IT 1,2,3-Propanetriol, 1-[2-(p-fluorophenyl)-2H-1,2,3-triazol-4-yl]-, triacetate (ester), L-erythro-
5β-Card-20(22)-enolide, 19-(butylimino)-3β-[[(O-(O-D-glucosyl-β-D-glucosyl)cymarosyl]oxy]-5,14-dihydroxy-
5β-Card-20(22)-enolide, 3β-[[(O-β-glucosyl-O-β-D-glucosyl)cymarosyl]oxy]-5,14-dihydroxy-19-[(2-hydroxy-1-methylethyl)imino]-
Galactaranilide, 4',4"-disulfamoyl-
Galactaranilide, 4',4"-disulfamoyl-, tetraacetate
Galactonanilide, pentaacetate, D-
Galactonanilide, D-
Galactonanilide, 4'-sulfamoyl-, pentaacetate, D-
Galactonanilide, 4'-sulfamoyl-, D-
Galactonoyl azide, pentaacetate, D-
Galactonoyl chloride, pentaacetate, D-
Gluconanilide, pentaacetate, D-
Gluconanilide, 4'-sulfamoyl-, pentaacetate, D-
Gluconanilide, 4'-sulfamoyl-, D-
Gluconoyl azide, pentaacetate, D-
lyxo-Hexosulose, bis[(p-acetamidophenyl)hydrazone]

IT 25525-21-7, Glucaric acid
(derivs., preparation and reactions of)

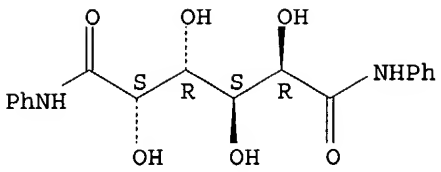
IT 5160-18-9, Galactaranilide, tetraacetate 11031-88-2, 5β-Card-20(22)-enolide, 3β-[(O-β-D-glucosylcymarosyl)oxy]-5,14-dihydroxy-19-[(2-hydroxybutyl)imino]- 24909-50-0, Cellobionoyl azide, octaacetate 39765-41-8, Galactaric acid, dimethyl ester, tetraacetate 45292-65-7, Galactaroyl chloride, tetraacetate 88893-08-7, Carbamic acid, (D-gluco-pentahydroxypentyl)-, ethyl ester, pentaacetate 95228-82-3, D-arabino-Hexosulose, bis(2,5-xylylhydrazone) 97573-30-3, Gluconanilide, 4-O-β-D-glucopyranosyl-4'-sulfamoyl-, octaacetate **99786-16-0**, Galactaranilide 101764-25-4, Acetanilide, 4'-hydrazino-, dihydrazone with lyxo-hexosulose 105001-04-5, Cellobionic acid, octaacetate 105067-88-7, Cellobionoyl chloride, octaacetate 107380-53-0, 29-Nor-8ξ,9ξ,13ξ,14ξ-dammara-17(20),24-dien-21-oic acid, 3α,11,16α-trihydroxy-, 16-acetate 107781-67-9, 5β-Card-20(22)-enolide, 19-(butylimino)-3β-[(O-β-D-glucosylcymarosyl)oxy]-5,14-dihydroxy- 107801-56-9, Cellobionanilide, octaacetate 108172-74-3, 5β-Card-20(22)-enolide, 3β-(cymarosyloxy)-5,14-dihydroxy-19-[(gluco-2,3,4,5,6-pentahydroxyhexyl)imino]- 108192-50-3, 5β-Card-20(22)-enolide, 3β-[(O-β-D-glucosylcymarosyl)oxy]-5,14-dihydroxy-19-(pentylimino)-
(preparation of)

IT **99786-16-0**, Galactaranilide
(preparation of)

RN 99786-16-0 HCAPLUS

CN Galactaranilide (7CI) (CA INDEX NAME)

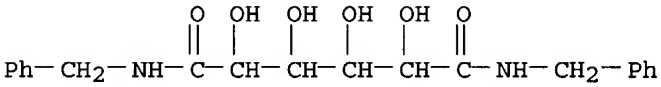
Relative stereochemistry.



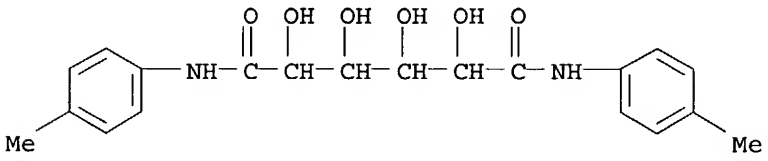
L63 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1957:29708 HCAPLUS
DN 51:29708
OREF 51:5705a-d
ED Entered STN: 22 Apr 2001
TI Reactions of active nitrogen with methane and ethane
AU Gartaganis, P. A.; Winkler, C. A.
CS McGill Univ., Montreal
SO Canadian Journal of Chemistry (**1956**), 34, 1457-63
CODEN: CJCHAG; ISSN: 0008-4042
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB cf. C.A. 46, 2889a. The active N-methane reaction was reinvestigated in the temperature range 45° to 500°. HCN was the only product, other than H. An "induction" effect (not induction in the usual sense, since it is not a function of time but of concentration) in the HCN production was observed with increase of CH4 flow rate. This induction decreased with increase of temperature and was shown to be due to concomitant H atom reactions, since it could be eliminated by addition of H atoms to the reaction mixture Substitution of He for H, under comparable conditions, had no effect on the induction, i.e., there was no effect by merely increasing the total pressure in the system. The active N-ethane reaction was reinvestigated over the temperature range from -100° to 475°. HCN was the only measurable product, other than H. At temps. below room temperature, small amts. of a dark brown polymer were deposited in the reaction vessel. There was some indication that an induction effect was present with C2H6, as with CH4. It is tentatively concluded that both reactions are carried substantially by H atom reactions. A detailed diagram of the apparatus used is given.
IT Radicals
(in nitrogen (atomic) reaction with C2H6 or CH4)
IT Reaction kinetics and(or) velocity
(of nitrogen atoms with C2H6 or CH4)
IT 7440-59-7, Helium 12385-13-6, Hydrogen, atomic
(effect on N atom reaction with C2H6 or CH4)
IT 931-54-4, Phenyl isocyanide
(formation in reaction of benzene with active N)
IT 74-90-8, Hydrocyanic acid
(formation of, from N atoms and C2H6 or CH4)
IT 74-90-8, Hydrocyanic acid
(formation of, from active N and organic compds.)
IT 100-47-0, Benzonitrile 110-86-1, Pyridine
(formation of, in benzene reaction with active N)
IT 91-22-5, Quinoline 119-65-3, Isoquinoline
(formation of, in naphthalene reaction with active N)
IT 623-26-7, Terephthalonitrile
(formation of, in reaction of benzene with active N)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **121970-51-2**, Saccharamide, N,N'-di-2-naphthyl- **121990-58-7**, Saccharamide, N,N'-di-1-naphthyl-
(preparation of)

IT 7727-37-9, Nitrogen
(reactions of, with C2H6 and CH4)
IT 74-82-8, Methane
(reactions of, with N)
IT 71-43-2, Benzene
(reactions of, with N (active))
IT 91-20-3, Naphthalene
(reactions of, with active N)
IT 74-84-0, Ethane
(reactions of, with atomic N)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **113114-92-4**, p-Saccharotoluidide **114329-73-6**, Saccharanilide, 3',3''-dinitro- **121970-51-2**, Saccharamide, N,N'-di-2-naphthyl- **121990-58-7**, Saccharamide, N,N'-di-1-naphthyl-
(preparation of)

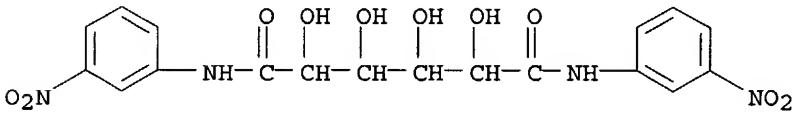
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



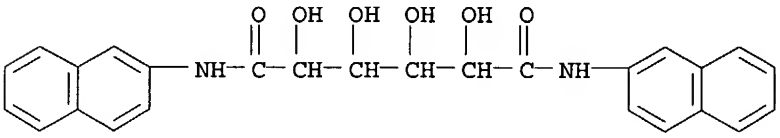
RN 113114-92-4 HCAPLUS
CN p-Saccharotoluidide (6CI) (CA INDEX NAME)



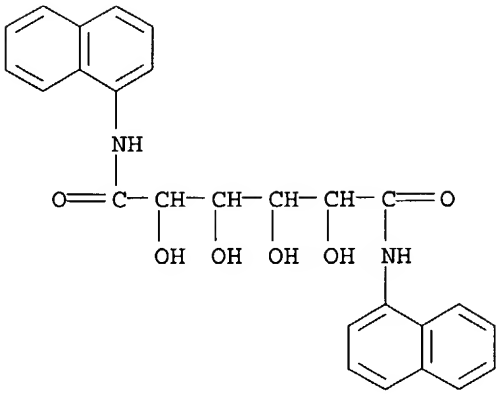
RN 114329-73-6 HCAPLUS
CN Saccharanilide, 3',3''-dinitro- (6CI) (CA INDEX NAME)



RN 121970-51-2 HCAPLUS
CN Saccharamide, N,N'-di-2-naphthyl- (6CI) (CA INDEX NAME)



RN 121990-58-7 HCAPLUS
CN Saccharamide, N,N'-di-1-naphthyl- (6CI) (CA INDEX NAME)



L63 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1943:23113 HCAPLUS
DN 37:23113
OREF 37:3733g-i,3734a-d
ED Entered STN: 16 Dec 2001
TI N-Benzylamides as derivatives for identifying the acyl group in esters
AU Dermer, O. C.; King, Jack
SO Journal of Organic Chemistry (**1943**), 8, 168-73
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB For the identification of the acyl group in esters, the N-benzylamides (I) are prepared according to a modified method by Buehler and Mackenzie (C. A. 31, 1778.1). The ester (1 g.) is refluxed with 3 cc. $PhCH_2NH_2$ in the presence of 0.1 g. NH_4Cl. The cooled mixture is washed with H_2O, if necessary acidified with HCl, and the solid amide filtered, dried, washed with ligroin and recrystd. from aqueous Me_2CO or EtOH. The I of the following acids are prepared: pivalic, isocaproic, oleic, linoleic, linolenic and dimethylpropenylacetic m. below 35°, $PrCO_2H$ m. 36-8°, $BuCO_2H$ m. 42-3°, $EtCO_2H$ m. 42.6-3.7°, dl-$MeEtCHCO_2H$ m. 47.5-8.5°, $AmCO_2H$ m. 52-3°, isovaleric m. 53-4°, HCO_2H m. 59.8-60.4°, AcOH m. 60-1°, hydroxypivalic m. 64°, m-toluic m. 74.5-5.5°, Et_2CHCO_2H m. 76-7°, lauric m. 82-3°, hydrocinnamic m. 84-5°, phenoxyacetic m. 84.5-6°, isobutyric m. 86.5-7.5°, myristic m. 89-90°, p-$H_2NC_6H_4CO_2H$ m. 89-90°, CCl_3CO_2H m. 93-4°, palmitic m. 94.5-5°, stearic m. 98.6°, m-$O_2NC_6H_4CO_2H$ m. 101°, glycolic m. 103-4°, BzOH m. 105-5.5°, o-$IC_6H_4CO_2H$ m. 109-10°, 2-furoic m. 111-11.5°, crotonic m. 112.5-13.6°, N-phenylglycine m, 113-14°, $PhCH_2CO_2H$ m. 122°, $CNCH_2CO_2H$ m. 123-4.5°, diglycolic m. 124-4.5°, anthranilic m. 124-5°, piperonylic m. 126.5-7.5°, anisic m. 131-2.5°, p-toluic m. 133°, salicylic m. 136.5-7°, ethylmatonic m. 137-8°, diethylmalonic m. 137.5-8.5°, 2,4,6-trimethylbenzoic m. 137.5-8.5°, p-$O_2NC_6H_4CO_2H$ m. 141-3°, m-$HOC_6H_4CO_2H$ m. 141-2.5°, malonic m. 141.5-2.5°, 2-furanacrylic m. 145-6°, butylmalonic m. 148-9°, maleic m. 149-50°, pimelic m. 153-4°, d- or l-malic m. 155.5-7°, β-phenylglutaric m. 159.5-60.5°, sebacic m. 166-7.5°, phenylethylmalonic m. 167-8°, carbonic, carbamic and chloroformic m. 167.5-9°, citric m. 169-70°, glutaric m. 169.5-70°, phthalic m. 178-9°, p-nitrophenylacetic m. 185-6°, adipic m. 188-9°, phenylsuccinic m. 189-90° β-methylglutaric m. 194-5°,

naphthalic m. 196.5-7.5°, d- or l-tartaric m. 197-200°, saccharic m. 200-1°, fumaric m. 203.5-5°, mesotartaric m. 203-7°, succinic m. 205-6°, dl-tartaric m. 208-10°, oxalic m. 222-3°, cinnamic m. 225-6°, acrylic m. 236-7°, and terephthalic m. 264-6°. The esters of inorg. acids, sulfonic acids, keto acids, polynitro aromatic acids and some halogenated aliphatic acids fail to give I. The esters of high-mol. alcs. have to be converted into the Me ester by refluxing them for 0.5 h. with MeOH containing a little MeONa. Glycine, glutamic acid, ClCH2CO2Et and p-MeC6H4SO3Me give products completely soluble in H2O or HCl and are not further investigated. Me acrylate gives a I of β-benzylaminopropionic acid (cf. Sani, Atti accad. Lincei [5], 15 I, 645(1906)).

IT Esters
(acyl group in, identification of)

IT Acyl groups
(identification of, in esters)

IT 1-Isobutyronaphthone
1-Propanone, 2-methyl-1-(9-phenanthryl)-
2-Furanacrylamide, N-benzyl-
3-Pentenamide, N-benzyl-2,2-dimethyl-
Acetamide, N-benzyl-α,α,α-trichloro-
Acetamide, N-benzyl-α-benzylamino-
Acetamide, N-benzyl-α-cyano-
Acetamide, N-benzyl-α-phenoxy-
Adipamide, N,N'-dibenzyl-
Anisamide, N-benzyl-
Benzamide, N-benzyl-o-iodo-
Butyramide, N-benzyl-α-ethyl-
Butyramide, N-benzyl-α-methyl-
Caproamide, N-benzyl-
Citramide, N,N',N''-tribenzyl-
Crotonamide, N-benzyl-
Diglycolamide, N,N'-dibenzyl-
Formamide, N-benzyl-α-chloro-
Glutaramide, N,N'-dibenzyl-β-methyl-
Glutaramide, N,N'-dibenzyl-β-phenyl-
Isobutyramide, N-benzyl-
Isocaproamide, N-benzyl-
Isovaleramide, N-benzyl-
Lauramide, N-benzyl-
Malamide, N,N'-dibenzyl-, d-
Malamide, N,N'-dibenzyl-, l-
Malonamide, N,N'-dibenzyl-α,α-diethyl-
Malonamide, N,N'-dibenzyl-α-butyl-
Malonamide, N,N'-dibenzyl-α-ethyl-
Malonamide, N,N'-dibenzyl-α-ethyl-α-phenyl-
Myristamide, N-benzyl-
Palmitamide, N-benzyl-
Pimelamide, N,N'-dibenzyl-
Piperonylamide, N-benzyl-
Pivalamide, N-benzyl-
Pivalamide, N-benzyl-β-hydroxy-
Propionamide, N-benzyl-α-benzylamino-
Stearamide, N-benzyl-
Succinamide, N,N'-dibenzyl-α-phenyl-
Tartramide, N,N'-dibenzyl-, d-, l-, dl-
Tartramide, N,N'-dibenzyl-, meso-
α-Toluamide, N-benzyl-
α-Toluamide, N-benzyl-p-nitro-
β-Isodurylamide, N-benzyl-

IT 1,3-Furo[3,4-c]furan-1,4(6)-dione, Furoic acid
Anisic acid

Butyric acid, α-methyl-
Carbamic acid, hydrazide
Glutaric acid, β-methyl-
Glutaric acid, β-phenyl-
Pivalic acid, hydroxy-
(identification of)

IT Isobutyrophenone, o-methoxy-
Isobutyrophenone, o-methyl-
(preparation of)

IT 100-46-9, Benzylamine
(N-acyl derivs.)

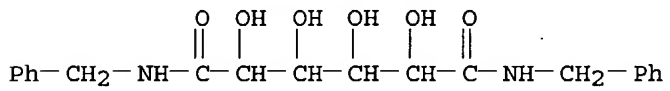
IT 64-18-6, Formic acid 64-19-7, Acetic acid 110-16-7, Maleic acid
141-82-2, Malonic acid 6915-15-7, Malic acid
(detection of)

IT 112-80-1, Oleic acid
(detection or identification of)

IT 57-10-3, Palmitic acid 57-11-4, Stearic acid 60-33-3, Linoleic acid
65-85-0, Benzoic acid 69-72-7, Salicylic acid 75-98-9, Pivalic acid
76-03-9, Acetic acid, trichloro- 77-92-9, Citric acid 79-09-4,
Propionic acid 79-10-7, Acrylic acid 79-14-1, Glycolic acid 79-31-2,
Isobutyric acid 87-69-4, Tartaric acid 87-73-0, Saccharic acid
88-09-5, Butyric acid, α-ethyl- 88-67-5, Benzoic acid, o-iodo-
88-99-3, Phthalic acid 94-53-1, Piperonylic acid 99-04-7, m-Toluic
acid 99-06-9, Benzoic acid, m-hydroxy- 99-94-5, p-Toluic acid
100-21-0, Terephthalic acid 103-01-5, Glycine, N-phenyl- 103-82-2,
α-Toluic acid 104-03-0, α-Toluic acid, p-nitro- 107-92-6,
Butyric acid 109-52-4, Valeric acid 110-17-8, Fumaric acid 110-94-1,
Glutaric acid 110-99-6, Diglycolic acid 111-16-0, Pimelic acid
111-20-6, Sebacic acid 118-92-3, Anthranilic acid 122-59-8, Acetic
acid, phenoxy- 124-04-9, Adipic acid 142-62-1, Caproic acid
143-07-7, Lauric acid 144-62-7, Oxalic acid 150-13-0, Benzoic acid,
p-amino- 372-09-8, Acetic acid, cyano- 463-40-1, Linolenic acid
463-73-0, Formic acid, chloro- 463-79-6, Carbonic acid 480-63-7,
β-Isodurylic acid 501-52-0, Hydrocinnamic acid 503-74-2,
Isovaleric acid 510-20-3, Malonic acid, diethyl- 518-05-8, Naphthalic
acid 534-59-8, Malonic acid, butyl- 539-47-9, 2-Furanacrylic acid
544-63-8, Myristic acid 601-75-2, Malonic acid, ethyl- 621-82-9,
Cinnamic acid 635-51-8, Succinic acid, phenyl- 646-07-1, Isocaproic
acid 1636-25-5, Malonic acid, ethylphenyl- 3724-65-0, Crotonic acid
16642-52-7, 3-Pentenoic acid, 2,2-dimethyl-
(identification of)

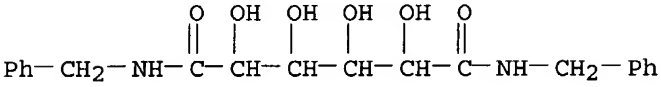
IT 62-23-7, Benzoic acid, p-nitro- 121-92-6, Benzoic acid, m-nitro-
538-32-9, Urea, benzyl- 563-80-4, 2-Butanone, 3-methyl- 565-80-0,
3-Pentanone, 2,4-dimethyl- 588-46-5, Acetamide, N-benzyl- 1018-97-9,
Benzophenone, 2,2'-dimethyl- 1466-67-7, Urea, 1,3-dibenzyl- 1485-70-7,
Benzamide, N-benzyl- 2585-26-4, Benzamide, N-benzyl-p-nitro-
2896-24-4, Naphthalimide, N-benzyl- 3551-78-8, Oxamide, N,N'-dibenzyl-
5240-54-0, Fumaramide, N,N'-dibenzyl- 5436-83-9, p-Toluamide, N-benzyl-
5471-20-5, Benzamide, o-amino-N-benzyl- 5857-36-3, 3-Pentanone,
2,2,4-trimethyl- 6343-54-0, Formamide, N-benzyl- **6614-44-4**,
Saccharamide, N,N'-dibenzyl- 7379-12-6, 3-Hexanone, 2-methyl-
7595-68-8, Benzamide, N-benzyl-m-nitro- 10255-99-9, Malonamide,
N,N'-dibenzyl- 10264-05-8, Valeramide, N-benzyl- 10264-10-5,
Hydrocinnamamide, N-benzyl- 10264-12-7, Propionamide, N-benzyl-
10264-14-9, Butyramide, N-benzyl- 10354-48-0, 2-Furamide, N-benzyl-
15771-25-2, Terephthalamide, N,N'-dibenzyl- 15789-02-3, Benzamide,
N-benzyl-m-hydroxy- 18286-71-0, Linoleamide, N-benzyl- 19340-77-3,
Glycolamide, N-benzyl- 20919-36-2, Salicylamide, N-benzyl- 29785-26-0,
Sebacamide, N,N'-dibenzyl- 38228-99-8, Phthalamide, N,N'-dibenzyl-
41882-53-5, m-Toluamide, N-benzyl- 42856-47-3, Glutaramide,
N,N'-dibenzyl- 54977-92-3, Benzamide, p-amino-N-benzyl- 57152-94-0,
Cinnamamide, N-benzyl- 71067-27-1, Succinamide, N,N'-dibenzyl-
101762-87-2, Oleamide, N-benzyl- 142607-80-5, Maleamide, N,N'-dibenzyl-

(preparation of)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl-
(preparation of)
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)



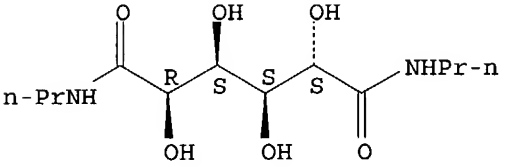
L63 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1939:54356 HCAPLUS
DN 33:54356
OREF 33:7834i,7835a-c
ED Entered STN: 16 Dec 2001
TI Saccharolactone as a reagent for precipitating certain amines
AU Kurtz, Alton C.; Wilson, D. Wright
SO Journal of Biological Chemistry (**1939**), 129, 693-9
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA Unavailable
CC 11B (Biological Chemistry: Methods and Apparatus)
AB When an alc. solution of saccharolactone is added to alc. solns. of certain amines, precipitation of N,N'-substituted saccharamides begins within a few sec.
or longer depending upon their solubility On spontaneous evaporation of saturated aqueous
solns. well-developed crystals are deposited. Under the exptl. conditions used the reaction is limited largely to primary amines and among these some specificity is shown in that the more sym. amines give the more rapidly formed and less soluble ppts. It is suggested that this specificity be used in separating mixts. of amines when the separation might otherwise be difficult. The volatile amines can be easily and quant. recovered by distillation from the saccharamide in a concentrated NaOH solution The m. ps. of the
substituted saccharamides derived from certain amines are: Me 188, Et 174, Pr 179-81, iso-Pr 176-8, Bu 178, iso-Bu 159, Am 173-4, iso-Am 138, n-heptyl 174-6, ethanol 129-30, PhCH2 200-1, β-PhEt 185-6, tyramine 204, piperidine 191° (darkens above 140). All m. ps. are corr. and the compds. melting in the vicinity of 174° and above decomposed with browning and frothing as they melted. The yields of the pure saccharamides varied inversely as the solubility and amounted to 24-69%.
IT Amines
(detection and determination of)
IT Piperidine, 1,1'-saccharyldi-
Saccharamide, N,N'-diamyl-
Saccharamide, N,N'-dibutyl-
Saccharamide, N,N'-diheptyl-
Saccharamide, N,N'-diisobutyl-
Saccharamide, N,N'-diisopropyl-
Saccharamide, N,N'-dimethyl-
Saccharamide, N,N'-diphenethyl-
Saccharic acid, dipiperidide
IT Saccharolactone
(separation of amines with)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **108991-69-1**, Saccharamide, N,N'-dipropyl- **708268-18-2**, Saccharamide, N,N'-bis(2-hydroxyethyl)- **708268-19-3**, Saccharamide, N,N'-bis(p-hydroxyphenethyl)- **708268-20-6**, Saccharamide, N,N'-diisoamyl-

(preparation of)
IT 75-04-7, Ethylamine
(saccharamide (substituted) from, m.p. of)
IT 109-73-9, Butylamine
(substituted saccharamide from, m. p. of)
IT 51-67-2, Tyramine 74-89-5, Methylamine 75-31-0, Isopropylamine
78-81-9, Isobutylamine 107-10-8, Propylamine 107-85-7, Isoamylamine
110-58-7, Amylamine 110-89-4, Piperidine 111-68-2, Heptylamine
141-43-5, Ethanol, 2-amino-
(substituted saccharamide from, m.p. of)
IT 64-04-0, Phenethylamine 100-46-9, Benzylamine
(substituted saccharamides from)
IT **6614-44-4**, Saccharamide, N,N'-dibenzyl- **108991-69-1**, Saccharamide, N,N'-dipropyl- **708268-18-2**, Saccharamide, N,N'-bis(2-hydroxyethyl)- **708268-19-3**, Saccharamide, N,N'-bis(p-hydroxyphenethyl)- **708268-20-6**, Saccharamide, N,N'-diisoamyl-
(preparation of)
RN 6614-44-4 HCAPLUS
CN D-Glucaramide, N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)

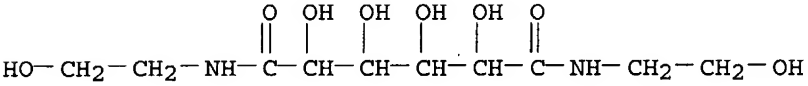


RN 108991-69-1 HCAPLUS
CN D-Glucaramide, N,N'-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

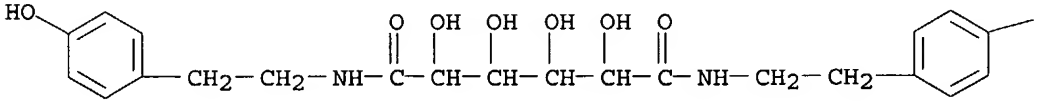


RN 708268-18-2 HCAPLUS
CN Hexaramide, N,N'-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



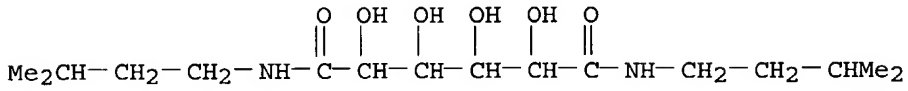
RN 708268-19-3 HCAPLUS
CN Hexaramide, N,N'-bis[2-(4-hydroxyphenyl)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

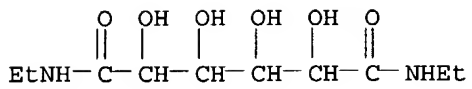


PAGE 1-B

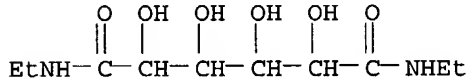
RN 708268-20-6 HCAPLUS
CN Hexaramide, N,N'-bis(3-methylbutyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1939:54070 HCAPLUS
DN 33:54070
OREF 33:7735b-d
ED Entered STN: 16 Dec 2001
TI Reversed aldol condensation
AU Fraenkel-Conrat, Heinz
SO Science (Washington, DC, United States) (**1939**), 90, 114
CODEN: SCIEAS; ISSN: 0036-8075
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB The splitting of a hexose C chain to form 2 trioses is assumed to be the reverse of an aldol condensation. A similar breakdown of α-keto-γ-acetoxy acids was observed in the change of α-keto-γ-acetoxy-valeric acid into pyruvic acid, AcOH and AcH and also of α-keto-γ-acetoxyhexoic acid into pyruvic acid, AcOH and EtCHO by incubating each with water at 37° for a few days. Aldol, acetaldol, β-acetoxybutyric acid and β-acetoxy-δ-ketopentane are quite stable under these conditions. Apparently, the mol. must contain an acid group (for the pH) and an oxo group in the β-position to an esterified alc. group in order to obtain the above observed breakdown. Using the above observation as an explanation of the disruption of the hexose diphosphate during fermentation into 2 triose phosphates, it is supposed that the hexose diphosphate is a ketose with a phosphoric ester group in the 4-position.
IT Condensation reaction
(aldol, reversed)
IT Hexoses
(cleavage of chain in)
IT Degradation
(of hexoses and γ-acetoxy α-oxo acids)
IT Acids
(γ-acetoxy α-oxo, cleavage of)
IT 3671-39-4, Calcium hexose diphosphate
(fermentation of, mechanism of splitting during)
IT **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)
IT **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)
RN 119248-40-7 HCAPLUS
CN Saccharamide, N,N'-diethyl- (6CI) (CA INDEX NAME)



L63 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1939:54069 HCAPLUS
DN 33:54069
OREF 33:7734i,7735a-b
ED Entered STN: 16 Dec 2001
TI Determination of uronic anhydride residues in polysaccharides
AU Campbell, W. G.; Hirst, E. L.; Young, G. T.
SO Nature (London, United Kingdom) (**1938**), 142, 912-13
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA Unavailable
CC 10 (Organic Chemistry)
AB cf. Colin and Lemoyne, C. A. 32, 5093.9. Glucose, fructose, sucrose, maltose, mannose and xylose, potato, rice and wheat starches, etc., but not mannitol, give small amounts of CO2 (0.2-1%) when heated with aqueous HCl. For starches, no structural significance can be attached to these small yields of CO2, while for other polysaccharides yields not greater than 1% may be untrustworthy as an indication of the presence of uronic anhydride. The claim advanced previously (C. A. 29, 5885.4) that certain wood starch prepns. contain uronic anhydride is not invalidated; only the numerical results are affected.
IT Polysaccharides
(uronic group determination in)
IT Uronic anhydride
(determination in polysaccharides)
IT **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)
IT **119248-40-7**, Saccharamide, N,N'-diethyl-
(preparation of)
RN 119248-40-7 HCAPLUS
CN Saccharamide, N,N'-diethyl- (6CI) (CA INDEX NAME)



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CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

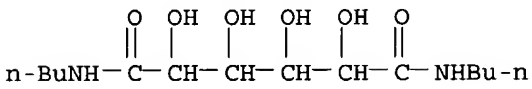
FILE 'USPAT2' ENTERED AT 07:40:02 ON 25 AUG 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l64 bib abs hitstr tot

L64 ANSWER 1 OF 4 USPATFULL on STN
AN 2004:127618 USPATFULL
TI Gelling agents or thickeners
IN van Esch, Johannes Henricus, Groningen, NETHERLANDS
Heeres, Andre, Groningen, NETHERLANDS
PI US 2004097602 A1 20040520
AI US 2003-656839 A1 20030905 (10)

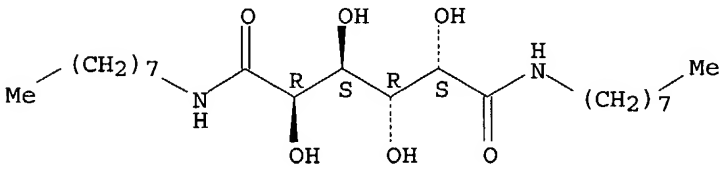
RLI Continuation of Ser. No. WO 2002-NL151, filed on 6 Mar 2002, UNKNOWN
PRAI EP 2001-200836 20010603
DT Utility
FS APPLICATION
LREP TRASK BRITT, P.O. BOX 2550, SALT LAKE CITY, UT, 84110
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 730
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a novel class of gelling agents or thickeners, to a process for preparing gelling agents or thickeners and to their use to prepare the gels. The present gelling agents or thickeners have the form of an N,N'-disubstituted aldaramide or N,N'-disubstituted pentaramide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **6614-45-5P 80714-41-6P 172957-31-2P**
457905-50-9P 457905-51-0P 457905-52-1P
457905-53-2P 457905-54-3P 457905-55-4P
457905-56-5P 457905-57-6P 457905-58-7P
457905-59-8P 457905-60-1P 457905-61-2P
457905-62-3P 458557-39-6P 458557-40-9P
458557-41-0P
(preparation of N,N'-disubstituted aldaramide or pentaramide derivs. via amidation of aldaric acids with amines for use as gelling agents or thickeners)
RN 6614-45-5 USPATFULL
CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



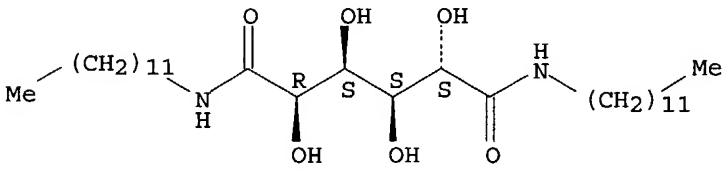
RN 80714-41-6 USPATFULL
CN Galactaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 172957-31-2 USPATFULL
CN D-Glucaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

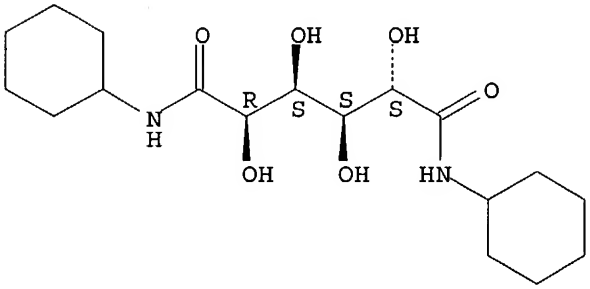
Absolute stereochemistry.



RN 457905-50-9 USPATFULL

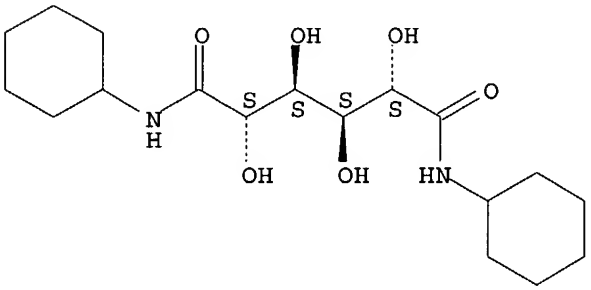
CN D-Glucaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



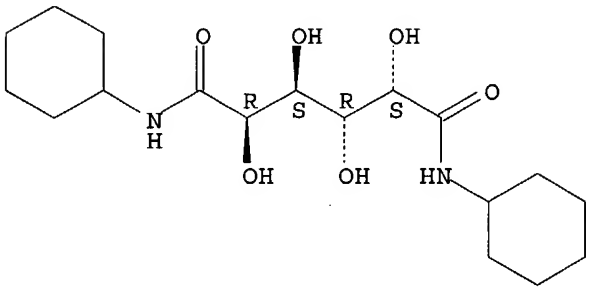
RN 457905-51-0 USPATFULL
CN D-Mannaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



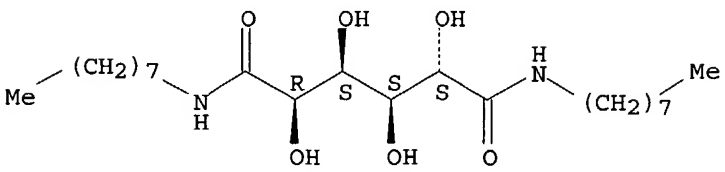
RN 457905-52-1 USPATFULL
CN Galactaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



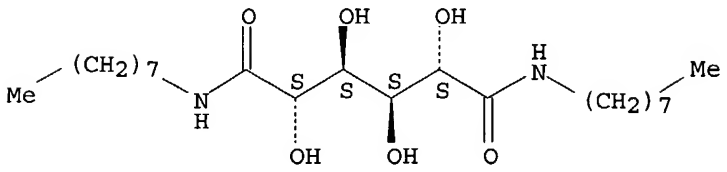
RN 457905-53-2 USPATFULL
CN D-Glucaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 457905-54-3 USPATFULL
CN D-Mannaramide, N,N'-dioctyl- (9CI) (CA INDEX NAME)

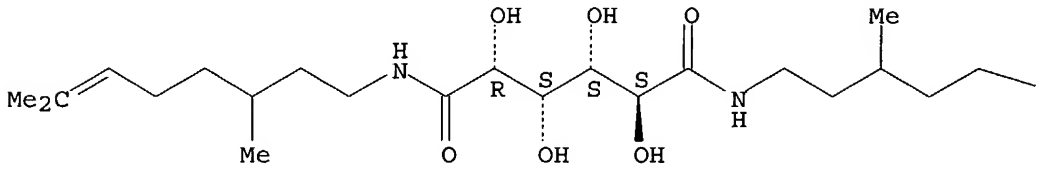
Absolute stereochemistry.



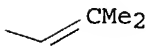
RN 457905-55-4 USPATFULL
CN D-Glucaramide, N,N'-bis(3,7-dimethyl-6-octenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

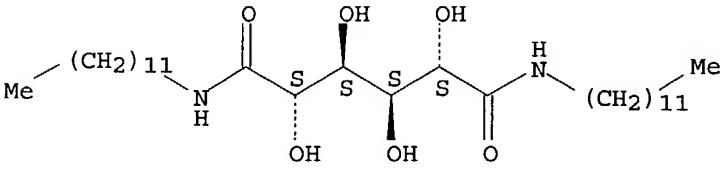


PAGE 1-B



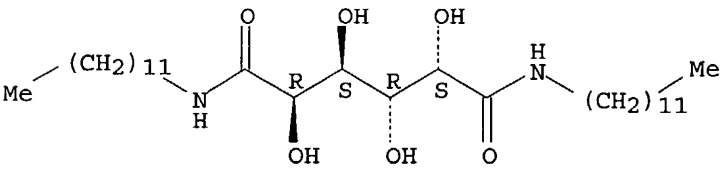
RN 457905-56-5 USPATFULL
CN D-Mannaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



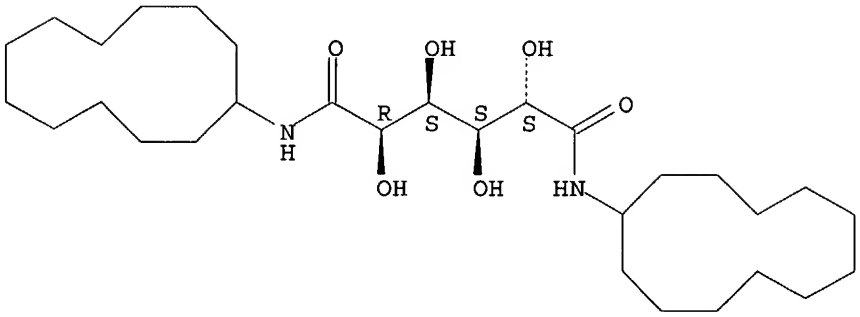
RN 457905-57-6 USPATFULL
CN Galactaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



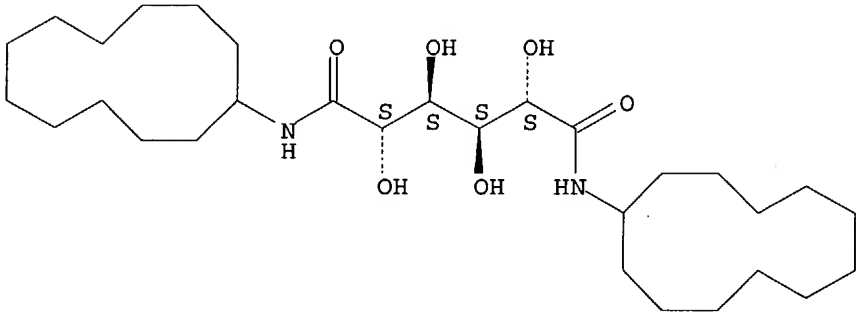
RN 457905-58-7 USPATFULL
CN D-Glucaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



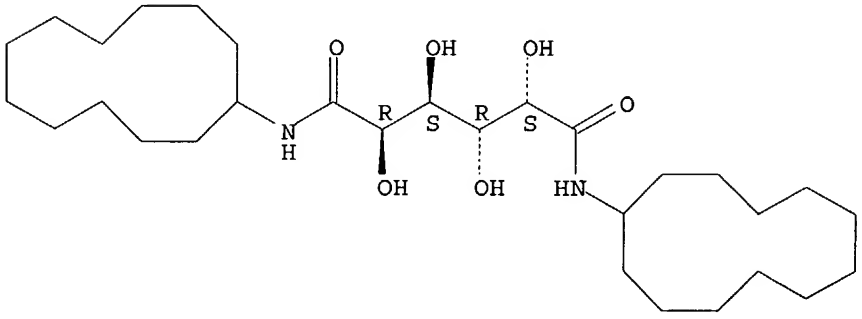
RN 457905-59-8 USPATFULL
CN D-Mannaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



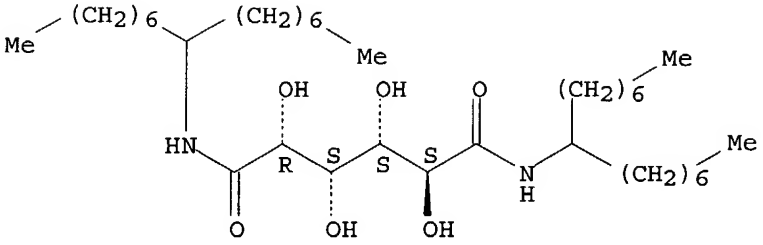
RN 457905-60-1 USPATFULL
CN Galactaramide, N,N'-dicyclododecyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 457905-61-2 USPATFULL
CN D-Glucaramide, N,N'-bis(1-heptyloctyl)- (9CI) (CA INDEX NAME)

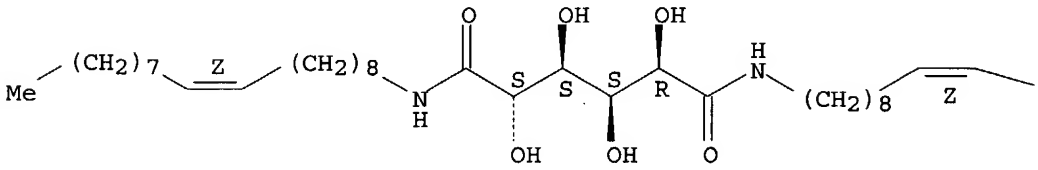
Absolute stereochemistry.



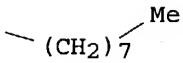
RN 457905-62-3 USPATFULL
CN D-Glucaramide, N,N'-di-(9Z)-9-octadecenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

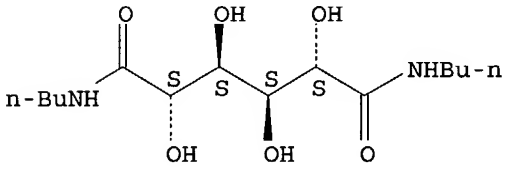


PAGE 1-B



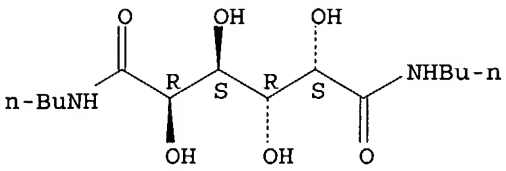
RN 458557-39-6 USPATFULL
CN D-Mannaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



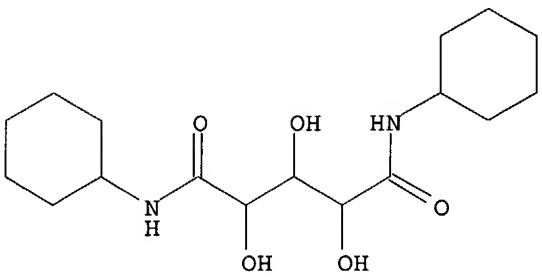
RN 458557-40-9 USPATFULL
CN Galactaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 458557-41-0 USPATFULL

CN Ribaramide, N,N'-dicyclohexyl- (9CI) (CA INDEX NAME)



L64 ANSWER 2 OF 4 USPATFULL on STN
AN 1998:135065 USPATFULL
TI Sulfuric acid esters of sugar alcohols
IN Chucholowski, Alexander, Grenzach-Wyhlen, Germany, Federal Republic of
Fingerle, Jurgen, Rheinfelden, Germany, Federal Republic of
Iberg, Niggi, Basel, Switzerland
Marki, Hans Peter, Basel, Switzerland
Muller, Rita, Basel, Switzerland
Pech, Michael, Hartheim, Germany, Federal Republic of
Rouge, Marianne, Basel, Switzerland
Schmid, Gerard, Kienberg, Switzerland
Tschopp, Thomas, Ettingen, Switzerland
Wessel, Hans Peter, Heitersheim, Germany, Federal Republic of
PA Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S. corporation)
PI US 5830920 19981103
AI US 1996-639986 19960426 (8)
PRAI CH 1995-1310 19950505
DT Utility
FS Granted
EXNAM Primary Examiner: Peselev, Elli
LREP Johnston, George W., Rocha-Tramaloni, Patricia S.
CLMN Number of Claims: 27
ECL Exemplary Claim: 27
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 3670
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds of the formula ##STR1## wherein n.sup.1 -n.sup.9 are each independently 0 or 1;

m.sup.1 -m.sup.9 are each independently 0 or 1, but with the proviso that at least one of m.sup.1, m.sup.2 and m.sup.3, at least one of m.sup.4, m.sup.5 and m.sup.6 and, when present, at least one of m.sup.7, m.sup.8 and m.sup.9 is 1; and wherein

X.sup.1 -X.sup.18 each independently is --O--, --CONR.sup.1,--NR.sup.1 CO-- or --NR.sup.1 --;

R.sup.1 is hydrogen or lower alkyl;

W is a benzene or s-triazine;

Y.sup.1 -Y.sup.9 each independently is an aromatic ring systems;

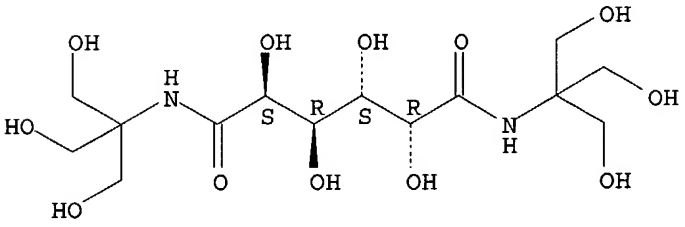
A.sup.1 -A.sup.3 each independently is a residue of a sugar alcohol devoid of the 1-hydroxy group or a derivative thereof, a residue of a sugar acid devoid of the 1-carboxy group or a derivative thereof or tris-(hydroxymethyl)-methyl;

D is the di-residue of a sugar alcohol devoid of 2 hydroxy groups or a derivative thereof or the di-residue of a sugar dicarboxylic acid devoid of 2 carboxy group or a derivative thereof;

Q.sup.1 -Q.sup.3 and Z.sup.1 -Z3 each independently are the di-residue of a sugar alcohol devoid of 2 hydroxy groups or a derivative thereof or the di-residue of a sugar dicarboxylic acid devoid of 2 carboxy groups or a derivative thereof or didesoxyglycopyranoside or a derivative thereof, wherein at least one hydroxy group of residues A.sup.1 -A.sup.3, D, Q.sup.1 -Q.sup.3 and Z.sup.1 -Z.sup.3 is esterified with sulfuric acid, and pharmaceutically usable salts thereof are useful for the treatment of disorders which are characterized by excessive or destructive proliferation of smooth muscle cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **185512-72-5P**
(preparation of sulfate esters of aminosugar derivs. for the inhibition of the migration and proliferation of vascular smooth muscle cells)
RN 185512-72-5 USPATFULL
CN Galactaramide, N,N'-bis[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]- (9CI) (CA INDEX NAME)

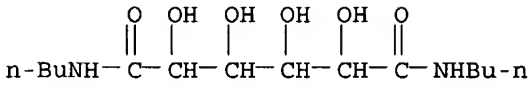
Relative stereochemistry.



L64 ANSWER 3 OF 4 USPATFULL on STN
AN 95:114292 USPATFULL
TI Carbohydrate acid amide plant fertilizers
IN Kiely, Donald E., 2521 Chatwood Rd., Birmingham, AL, United States 35226
PI US 5478374 19951226
AI US 1994-253918 19940603 (8)
RLI Continuation-in-part of Ser. No. US 1992-928007, filed on 12 Aug 1992, now patented, Pat. No. US 5329044
DT Utility
FS Granted
EXNAM Primary Examiner: Lander, Ferris
LREP Gates, Stephen, Hendricks, Glenna
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 355
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The nitrogen in amides of aldonic and aldaric acids having 5 or 6 carbon atoms in the carbohydrate residue is available to support plant growth, i.e. the materials act as nitrogen fertilizers.

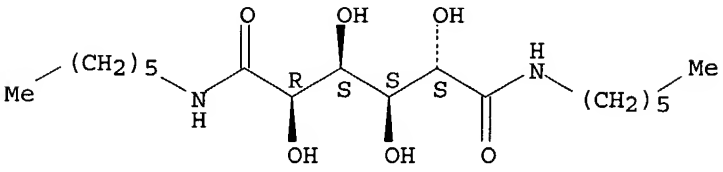
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **6614-45-5**, N,N'-Dibutyl-D-glucaramide **156016-06-7** **172957-31-2**
(fertilizer)
RN 6614-45-5 USPATFULL

CN D-Glucaramide, N,N'-dibutyl- (9CI) (CA INDEX NAME)



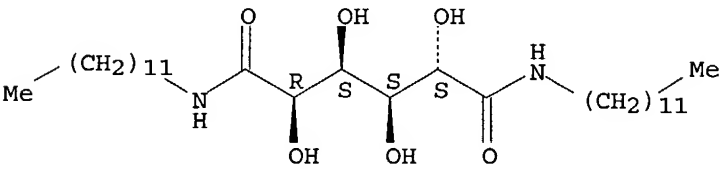
RN 156016-06-7 USPATFULL
CN D-Glucaramide, N,N'-dihexyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 172957-31-2 USPATFULL
CN D-Glucaramide, N,N'-didodecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L64 ANSWER 4 OF 4 USPATFULL on STN
AN 89:41278 USPATFULL
TI Polyhydroxypolyamides and process for making same
IN Kiely, Donald E., Birmingham, AL, United States
Lin, Tsu-Hsing, Rockville, MD, United States
PA Research Corporation Technologies, Inc., Tucson, AZ, United States (U.S. corporation)
PI US 4833230 19890523
AI US 1988-209663 19880621 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Kight, John; Assistant Examiner: Acquah, S. A.
LREP Scully, Scott, Murphy & Presser
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 620
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A new class of polyhydroxypolyamides is disclosed. The polyhydroxypolyamides, useful as fibers, plastics, coatings and adhesives, are characterizied by the repeating structural unit

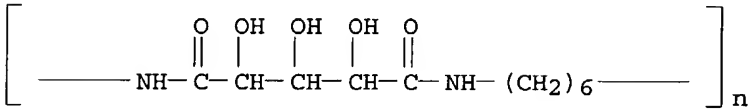
--CO--(CHOH).sub.x --CO--NHCH.sub.2 --(CR.sup.1 H).sub.y --CH.sub.2 NH].sub.n

where R.sup.1 and R.sup.2 are the same or different and are hydrogen, C.sub.1 -C.sub.50 alkyl, C.sub.2 -C.sub.50 alkenyl or C.sub.7 -C.sub.50 aralkyl; x is an integer of 1 to 6; y and z are the same or different

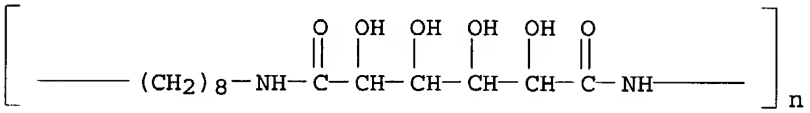
and are 0 or an integer of 1 to about 30; and n is an integer of at least about 10.

A process for making these polyhydroxypolyamides is also taught. It includes the steps of reacting an aldaric compound, said compound selected from the group consisting of a diacid, an acid-lactone, a dilactone and mixtures thereof, with an alkanol to form an esterification product and forming the polyhydroxypolyamide by polymerizing the esterification product with a primary amine in a polar solvent.

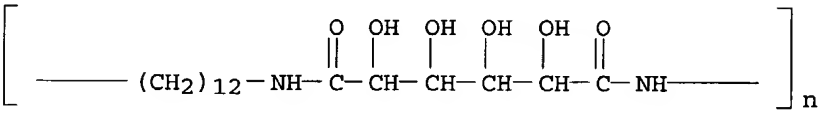
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **32038-06-5P**, Poly(iminoxylaroylimino-1,6-hexanediyl)
261634-72-4P 261634-73-5P 261635-32-9P
261635-80-7P 261636-11-7P 261636-12-8P,
Poly(iminoxylaroylimino-1,8-octanediyl) **261636-13-9P**
(preparation of)
RN 32038-06-5 USPATFULL
CN Poly(iminoxylaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



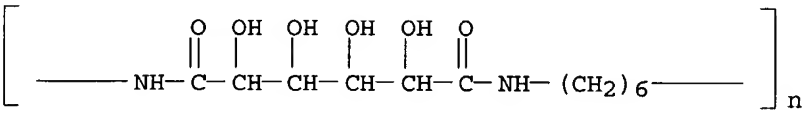
RN 261634-72-4 USPATFULL
CN Poly(iminogalactaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



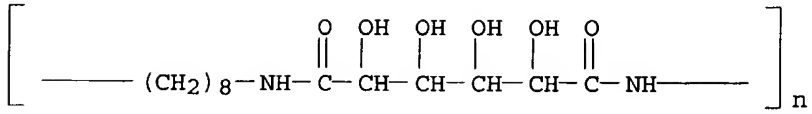
RN 261634-73-5 USPATFULL
CN Poly(iminogalactaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



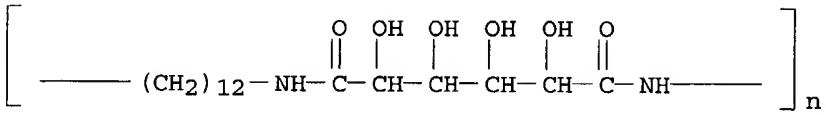
RN 261635-32-9 USPATFULL
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,6-hexanediyl) (9CI) (CA INDEX NAME)



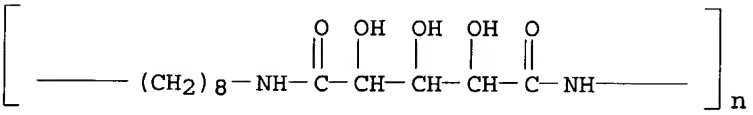
RN 261635-80-7 USPATFULL
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



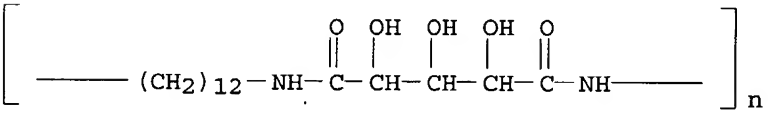
RN 261636-11-7 USPATFULL
CN Poly(imino-(2ξ,5ξ)-D-threo-hexaroylimino-1,12-dodecanediyl) (9CI)
(CA INDEX NAME)



RN 261636-12-8 USPATFULL
CN Poly(iminoxylaroylimino-1,8-octanediyl) (9CI) (CA INDEX NAME)



RN 261636-13-9 USPATFULL
CN Poly(iminoxylaroylimino-1,12-dodecanediyl) (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 06:55:26 ON 25 AUG 2004)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 06:55:38 ON 25 AUG 2004
L1 1 S US20040097602/PN OR (WO2002-NL151 OR EP2001-200836)/AP,PRN
E VAN ESCH J/AU
L2 22 S E3,E5,E10
E VANESCH J/AU
E ESCH J/AU
E HEERES A/AU
L3 24 S E3,E5
E APP NANO/PA,CS
E APPL NANO/PA,CS
E APPLIED NANO/PA,CS
L4 16 S E6-E9
SEL RN L1

FILE 'REGISTRY' ENTERED AT 06:57:51 ON 25 AUG 2004
L5 69 S E1-E69
L6 23 S L5 AND N>=2 AND O>=4
L7 STR
L8 5 S L7

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L9          173 S L7 FUL
                SAV L9 KUMAR656/A
L10          81 S L9 AND PMS/CI
L11          44 S L10 AND 2/N
L12          37 S L10 NOT L11
L13           3 S L11 AND NC>=2
L14          41 S L11 NOT L12,L13
L15          33 S L14 AND 5-6/O
L16           8 S L14 NOT L15
L17          20 S L15 NOT XI
L18          13 S L15 NOT L17
                SEL RN 1 3 8-13
L19           8 S E70-E77
L20          92 S L9 NOT L10
L21          19 S L5 AND L9
L22          73 S L20 NOT L21
L23          35 S L22 AND N>=3
L24           3 S L23 AND (C18H22N4O10S2 OR C18H28N6O6 OR C18H18N4O10)
L25          38 S L22 NOT L23
L26          11 S L25 AND (C18H36N2O16 OR C5H10N2O5 OR C6H12N2O6 OR C12H20N2O6
L27          27 S L25 NOT L26
L28          77 S L19,L17,L21,L24,L27
L29           2 S L28 AND CL/ELS
L30           9 S L28 AND O>=7
L31           1 S L30 AND PMS/CI
L32           8 S L30 NOT L31
L33          10 S L29,L32
L34          27 S L28 AND PMS/CI NOT L29-L33
L35          39 S L28 NOT L29-L34
L36           1 S L35 AND NCNC2/ES
L37          38 S L35 NOT L36

     FILE 'HCAOLD' ENTERED AT 07:19:36 ON 25 AUG 2004
L38           7 S L33 OR L36
L39           0 S L34
L40           7 S L38
L41           7 S L38,L40
                SEL AN
                EDIT E78-E84 /AN /OREF

     FILE 'HCAPLUS' ENTERED AT 07:20:14 ON 25 AUG 2004
L42          14 S E78-E84
                SEL DN AN 2 5 6 8 10 12 14
L43           7 S L42 NOT E85-E105
L44          12 S L33 OR L36
L45          15 S L34
L46          12 S L38
L47          28 S L43-L46

     FILE 'REGISTRY' ENTERED AT 07:23:11 ON 25 AUG 2004
L48          38 S L21 OR L37

     FILE 'HCAOLD' ENTERED AT 07:23:45 ON 25 AUG 2004
L49           3 S L48 NOT L41
                SEL AN
                EDIT 3106-108 /AN /OREF E106-E108 /AN /OREF

     FILE 'HCAPLUS' ENTERED AT 07:30:34 ON 25 AUG 2004
L50           6 S E106-E108
                SEL AN 2 4 6
L51           3 S L50 NOT E109-E114
L52          30 S L47,L51
L53          22 S L48
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L54          42 S L52,L53
L55           2 S L54 AND L1-L4
L56          37 S L54 AND (PD<=20010603 OR PRD<=20010603 OR AD<=20010603)
L57          38 S L55,L56
L58           4 S L54 NOT L57

     FILE 'HCAOLD' ENTERED AT 07:33:37 ON 25 AUG 2004
L59          10 S L41,L49

     FILE 'HCAPLUS' ENTERED AT 07:33:41 ON 25 AUG 2004
L60          10 S L43,L51
L61          10 S L54 AND L60
L62          28 S L57 NOT L61
L63          26 S L62 NOT L55

     FILE 'REGISTRY' ENTERED AT 07:34:28 ON 25 AUG 2004

     FILE 'HCAOLD' ENTERED AT 07:35:17 ON 25 AUG 2004

     FILE 'HCAPLUS' ENTERED AT 07:36:00 ON 25 AUG 2004

     FILE 'USPATFULL, USPAT2' ENTERED AT 07:37:10 ON 25 AUG 2004
L64           4 S L21,L34,L38,L36,L48

     FILE 'REGISTRY' ENTERED AT 07:37:49 ON 25 AUG 2004
L65          97 S L9 NOT L21,L34,L38,L36,L48

     FILE 'USPATFULL, USPAT2' ENTERED AT 07:40:02 ON 25 AUG 2004

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